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THE BRITISH PHARMACEUTICAL CONFERENCE.

THE long letter upon this new pharmaceutical association, printed in our Correspondence columns, expresses the opinions of a very worthy member of the trade, and, we are afraid, those of many clever and influential "outsiders." The writer, though a staunch advocate of scientific education, cannot look with favour upon an association which he evidently believes was organized in Bloomsbury-square for the exclusive benefit of the members of the Pharmaceutical Society. He has no faith in the catholic professions of the promoters of the Conference, and does not believe that the existing local associations will commit themselves in such a manner as to send delegates to the Annual Meeting.

This declaration of hostility by one whose support would have been most valuable, is the fruit of the want of foresight shown by the promoters of the Conference in excluding non-Pharmaceutical Chemists from the staff of officers, and in selecting for their two General Secretaries the teacher of Practical Chemistry in the Bloomsbury laboratory, and a clever gentleman who has made himself conspicuous by his active opposition to the United Society. We must not forget, however, that the idea of the Conference originated with members of the Pharmaceutical Society, who would naturally ask leading members of their own body to take office. Nor must we forget that the two Secretaries are well qualified for their posts, being excellent chemists and able writers.

We have never hesitated to expose the narrow policy of the Pharmaceutical Society, even at the risk of losing many of our subscribers. We have fought on the side of the general body of the trade with the leaders of the United Society, and have often found ourselves opposed to the compact body of Pharmaceutical Chemists. Still, all our fighting has been to overthrow oppressive measures, and to break down absurd class distinctions. The recent movement made by a few energetic members of the Pharmaceutical Society is, we believe, an advance in the right direction, and, instead of opposing it, we shall give it our hearty support. When we find that the liberal Constitution of the British Pharmaceutical Conference is nullified by the acts of its officers or members, it will be time enough to adopt the views of our Correspondent, and to alter our tactics.

We look upon the Conference as a purely scientific organization, and we do hope that class jealousy will not interfere with its healthy growth. There is not a clause in the Constitution against which any valid objection can be raised. The provision referred to by our Correspondent, that "Membership in the Conference shall not be considered as conferring any guarantee of professional competency," is a very proper one, as it would be scandalous if the payment of the annual subscription gave one Chemist the advantage over another who might not feel disposed to join the Conference. This clause exists in the Constitution of the American Pharmaceutical

Association, which has evidently been taken as the model for that of the British Conference.

The meeting at Newcastle was held for the purpose of organizing the Association, and we may therefore justly conclude that those who attended were its chief projectors. Now, if the reader conversant with Pharmaceutical politics will look over the names of those present, he will see that the young blood of the Society was in great excess, and that the Liberal element outweighed the Conservative. The chair was occupied by a gentleman who is greatly respected by all who know him, and who is distinguished alike for his scientific attainments and his advanced views. Again, the able and popular Professor of Botany was present; but the energetic Professor of Chemistry, whose name for some reason or other is generally associated with Pharmaceutical exclusiveness, was absent. The fact that the Conference originated with the younger members of the Society will perhaps account for the absence of any editorial remarks upon the Newcastle Meeting in this month's *Pharmaceutical Journal*.

We hope that the meeting at Bath will be well attended by members both of the Pharmaceutical and United Societies, and that British Pharmacy may be advanced by their proceedings.

ALTERATION IN THE SIZE OF OUR JOURNAL.

AFTER much consideration, we have decided to enlarge our Journal in January next, and to give it the form of the *Lancet*, *Medical Times*, *Grocer*, and other class publications. We are aware that many objections may be urged against the change; but after carefully weighing the arguments for and against the new form, we find that the "Ayes" greatly preponderate. On the lowest calculation, we shall gain space for literary matter equivalent to the contents of four of our present pages. Every month we feel the want of this space, and are frequently compelled to leave out articles which we should like to present to our readers.

EDITORIAL NOTE.

WE are compelled to postpone the publication of our Reviews and several Letters until next month, owing to the length of the principal articles in the present issue. A descriptive article on Young's great Paraffin Works, by Mr. W. B. Tegetmeier, will appear in the November number.

THE CHEMICAL MANUFACTURES OF GREAT BRITAIN.

BY CHARLES W. QUIN, F.C.S.

ADHERING to our original intention of describing those factories in which the principal specialties of the Pharmacist are manufactured, we have this month chosen for description the works of Messrs. Huskisson and Sons, long known as the chief makers of the compounds of iodine in this country. Those who visited the Chemical department of the late International Exhibition will not soon forget the splendid and complete collection of iodine and iodides exhibited by this eminent firm, and described at length in the *CHEMIST AND DRUGGIST*. The bromides contributed by them were not less admirable, and called forth the well-merited commendation of the venerable discoverer of bromine, M. Balard, who acted as President of the Chemical Section of the International Jury.

A VISIT TO MESSRS. HUSKISSONS AND SONS'.

This is one of the oldest chemical factories in existence in this country, having been founded in the latter half of the seventeenth century, by Dr. Samuel Towers, an eminent

physician of that age, and the direct lineal ancestor of the present proprietors. This gentleman, who was for those days a very clever practical and theoretical Chemist, and an ardent lover of science generally, established a laboratory in Oxford-street, or Oxford-road, as it was then called. He was afterwards joined in business by his brother George Towers, with whose assistance he carried on the concern most successfully for many years. Previous to this, the Apothecaries of that day—the precursors of the present race of Chemists and Druggists—were accustomed to prepare their chemicals on the leads of their houses; and it was Dr. Samuel Towers who was one of the first to carry out successfully the notion of establishing on an extensive scale laboratories for the manufacture of chemicals in a greater state of purity and excellence than had hitherto been attained. These laboratories were no sooner in working order than the Apothecaries so thoroughly appreciated their productions, that they abandoned the method of private manufacture, and gave up their leads to the more pleasing occupation of gossiping, love-making, and a number of other agreeable pursuits of a similar nature, of which chatty Mr. Secretary Pepys has left us so amusing an account in his famous "Diary." Those of our readers who pass up and down the Strand occasionally should look up at the carefully railed-off leads on the roof of Prout's, the Chemist, a few doors from Temple Bar, on the south side of the Strand. They were, no doubt, employed for the purposes above named by Mr. Prout's predecessors, the shop having been used as a Chemist's for many years past.

The neighbourhood of Oxford-street, in which Messrs. Towers's first manufactory was situated, soon became so fashionable that they were obliged to move out of the way of the exquisites of the day, who would not allow chemical fumes "to come between the wind and their nobility." The establishment was consequently transferred to more convenient and extensive premises at Mount Pleasant, near Cold Bath Fields; and Messrs. Towers gradually enlarged their business until they obtained the patronage of the Government for the chemical requirements of the Royal Laboratories at Woolwich Arsenal and elsewhere. In addition to the Mount Pleasant premises, they established other factories in another part of Cold Bath Fields, and in Maiden-lane, Battle Bridge, on a portion of the ground now occupied by the King's-cross Terminus of the Great Northern Railway. The latter premises were specially employed for making liquor ammoniac, or hartshorn, as it was then called (being solely obtained by the distillation of stags' horns and bones), oxalic acid, and other products too deleterious to manufacture in an increasing neighbourhood without the appliances of the present day for collecting and neutralizing offensive vapours. The last-named substance was manufactured in what was then considered large quantities, one consumer alone taking thirteen hundredweight weekly, at 7s. 6d. per lb. Its principal use was for dressing the upper portions of top-boots, so much worn at that period, and without which no gentleman was considered to be properly "dressed." Towards the end of the last century, an unfortunate misunderstanding arose between the Towerses and the Huskissons. Mr. Towers soon after retired from the business, and spent the remainder of a long and useful life in the cultivation of literary and scientific pursuits, editing several scientific periodicals, and contributing greatly to the advance of the science of his day. He may be mentioned as one of the first who turned his attention to the utilization of sewage for manure, and spent large sums of money in experimenting in this direction. He died at Croydon, at a patriarchal age, at the beginning of the present century, deeply regretting the unfortunate differences that had separated him from the firm. It may interest our readers to learn that William Huskisson, the great political reformer, and father of free-trade, was a member of this family.

After the dissolution of partnership, the Huskissons purchased a large portion of the Swinton estate, which was then surrounded by farms and fields, and erected premises and laboratories, which are now bounded by Swinton-street, Constitution-row, George-street, and Bagnigge Wells-road. So hemmed in are the premises by houses, and so perfect are the appliances used for carrying off the smoke and fumes inseparable from chemical manufactures, that neither the sight nor the smell would give the passer-by

the least suspicion that one of the largest chemical establishments in London existed in the neighbourhood. The site of the present works is interesting from a historical point of view, from being the spot on which the last decisive battle between the Romans and Britons was fought, on the banks of the river Fleet, and which gave the name to the Battle Bridge long since swept away, and existing now only in name. Part of the estate was also covered with the famous cinder-heap, which a fortunate dust-contractor of the period sold to the Russian Government for a small fortune, for making the bricks used in the rebuilding of the city of Moscow.

From the above particulars, it will be seen that this house originated the manufacture of chemicals in their present state of excellence and purity. One of the most striking examples of this is in the manufacture of

POTASSIO-TARTRATE OF SODA, OR ROCHELLE SALT.

This well-known salt was only met with in commerce in impure amorphous crystalline masses, or at best in rude, irregular crystals, until the middle of the last century, when Mr. George Towers became impressed with the notion that it could be produced in clean and regular crystals of uniform composition. He thoroughly devoted himself to the task, and after repeated experiments, extending over a period of several years, he eventually succeeded in producing those beautiful tabular crystals for which this house was so long celebrated. George Towers was a man of strong religious principles; and on completing the process, he was so struck by the crystalline beauty of the masses he had produced, sparkling, as he said, "like an island of jewels," that he fell on his knees beside the crystallizing pans, and returned thanks to the Almighty for the discovery he had made. At that period the crystals were the only form in which Rochelle salt was sold. The crystals were sorted into their different sizes, and sold at prices varying from four to eight guineas per hundredweight, according to their uniformity. The salt is still manufactured here on a very large scale, by the old process of decomposing the double tartrate of potash with carbonate of soda. Amongst other articles for which this house was specially famous, were carbonate of magnesia, calcined magnesia, the aromatic spirit of ammonia, spirit of nitric ether, and many other substances, into the manufacture of which time and space will not permit us to enter. We must not, however, pass over

BICARBONATE OF SODA.

Towards the end of the last century, Samuel Huskisson, the father and grandfather of the members of the present firm, discovered the successful method of making a true bicarbonate of soda by passing a stream of carbonic acid through small crystals of the mono-carbonate. The carbonic acid used in the process was generated by burning charcoal. This mode of procedure produced an article altogether superior to that made by the then existing method of passing carbonic acid through a solution of the carbonate. The process remained a secret of the house for more than twenty years, the price being 8s. 6d. per lb.; and many hundredweights were sold weekly. The secret did not long remain so, but was divulged by a relative, and other makers immediately entered into competition with the Huskissons. At that time the source of carbonate of soda was barilla; and it was remarked that the iron vessels employed in the evaporation of the salt became corroded and spoilt by a black sediment which was deposited during the manufacture of sulphate of soda. The matter, however, was not followed up. Had it been so, England would have had the honour of discovering iodine; for that element, as the reader can no doubt easily guess, was the black deposit that destroyed the iron pots. Although so narrowly missing the discovery of this element, iodine was destined to play a considerable part in the future greatness of the firm of Huskisson and Sons. They still retain the corroded vessels, which are interesting for another reason. In the old days, sulphate of soda, or Glauber's salts, was subject to a duty, and the pans were provided with covers, which were locked and unlocked by the exciseman when going his daily rounds. It was then a product of considerable importance, being much more used in medicine than it is at present.

CHLOROFORM.

Upon the introduction of this valuable anæsthetic agent, Messrs. Huskisson became large manufacturers, one of the firm being the first to call attention to the supposed formation of hydrochloric acid when the chloroform was agitated with pure sulphuric acid, and also to the appearance of a pinkish colour in the product from the formation of a salt of manganese, owing to the peroxide of that metal being employed in a subsequent part of the process. In one of the early numbers of the "Annals of Pharmacy,"—a talented, but, alas! too soon defunct literary predecessor of the CHEMIST AND DRUGGIST,—a formula was published by a member of the firm, which was afterwards, and is, we believe, still adopted by the majority of manufacturers of chloroform. Although large makers at first, Messrs. Huskissons gradually restricted this manufacture within narrow limits; their efforts to increase their production being paralyzed by the disparity between the duty on English spirits and Scotch whisky, which was so great as to throw the trade almost exclusively into the hands of our Scotch neighbours.

On all sides we find processes going on which it is impossible to describe, which may, however, engage our attention in the future when visiting the works of other makers. We must, however, give a glance at some pure *bicarbonate of ammonia* which is being re-sublimed at a very low temperature in milk-white masses. In another portion of the premises, pure *carbonate of potash* is crystallizing in large vats. Considerable quantities of the pure salt are now manufactured, being much employed in making cyanide of potassium, certain varieties of glass, and other processes where the precise percentage of potash is required. In other vats, pure *nitrate of potash* is shooting forth its familiar hexagonal prisms in radiating masses of great beauty. Apropos of nitrate of potash, a curious fact may be mentioned, showing how a scientific manufacturer made some thousands of pounds by the application of a little chemical knowledge to an ordinary commercial transaction. In 1794, a large fire occurred at the East India Company's saltpetre warehouses at Ratcliffe-highway, destroying 600 houses and stores, worth over one million of money. The firm, on speculation, offered 5s. per cart-load for the *débris* of those portions of the premises in which some 40,000 bags of saltpetre had been stored. The salvors ridiculed the notion, and pitied the firm for embarking in what appeared to be so wild a speculation. Their ridicule was, however, turned into mortification mingled with admiration when they found that Messrs. Huskissons, on washing the rubbish, had succeeded in extracting an amount of carbonate and nitrate of potash which, when sold, brought them in a clear profit of several thousands of pounds.

We now come to the products which are the specialties of the house—the iodine and bromine preparations.

IODINE AND BROMINE.

The chemical and physical properties of iodine are, doubtless, well known to our readers. It may, however, be as well to remind them that iodine is an elementary body, crystallizing in bluish-black scales, with a metallic lustre, fusing at 225°, boiling at 347°, and evaporating at ordinary temperatures, especially when damp. Its odour is similar to that of chlorine, and it sublimes in violet-coloured vapours. Its history is interesting; the circumstances of its discovery showing what immense practical service manufacturers may render to science by intelligently following up unexplained facts that may come under their notice when working with large quantities of material. Iodine was discovered by M. Courtois, a French manufacturer of saltpetre, residing at Paris, who, on adding sulphuric acid to the mother liquors of sea-water, from which nearly all the sea-salt had been crystallized, in order to transform any remaining traces of carbonate of soda into sulphate, noticed that a beautiful violet vapour arose from the mixture as soon as heat was applied. At the same time, he was struck with the very rapid manner in which the iron vessels he had used became corroded and destroyed. On carefully examining the residues in the boilers, he obtained a peculiar

substance, crystallizing in iron-grey plates, having a metallic appearance. This crystalline material, on being submitted to the action of heat, gave forth the violet vapour he had at first obtained. Although a man of great sagacity and high scientific attainments, M. Courtois hardly felt himself strong enough to pursue his investigations into the properties of this new substance, which he rightly conceived to be an element. He accordingly communicated his discovery to M. Clement, an eminent Chemist of the day, who at once set about investigating the nature of the new body; and a few weeks after, the celebrated Gay-Lussac read a paper before the French Academy of Sciences, in which he demonstrated that the new substance was an element similar to chlorine, and gave an account of its most interesting properties. Some days after, Sir Humphrey Davy, who happened to be in Paris at the time, read another paper on the new element before the same august body, agreeing in the conclusions arrived at by his eminent colleague, and showing the important bearing that this discovery had on his theory of the elementary nature of chlorine, which he was then engaged in working out. It was not, however, until 1819, some six years after its discovery, that iodine was first employed in pharmacy. The merit of the introduction of this powerful curative agent into medicine is due to Dr. Coindet, a physician of Geneva, who in that year commenced a series of experiments upon it as a remedy for bronchocele or goitre, a malady unfortunately only too common in the mountainous districts of Switzerland. Dr. Coindet was first prompted to try iodine and its compounds in bronchocele by the experience he had had of the efficacy of burnt sponge and the ashes of *Fucus vesiculosus* in this disorder. Knowing that both of these medicaments contained certain proportions of iodine, he rightly conjectured that it was to the presence of this element that they owed their powerful curative properties. The exhibition of it was at first strenuously opposed by the faculty of Europe, who were naturally averse to using what they knew to be a powerfully corrosive poison; but the successful results obtained by Dr. Coindet at Geneva, and by Baup, Gimelli, Kolley, and other eminent men in different parts of Europe, soon brought it into general use. Dr. Manson, an English physician, deserves the credit of having first employed it on an extensive scale in scrofulous diseases. In large doses given internally, iodine acts as a very energetic irritant poison; in smaller and continuous doses, it exercises a general stimulative action, more particularly on the pulmonary and gastro-intestinal mucous membranes; also on the mammary, thyroid, and the other glands generally, and on the genital organs. Its salts are largely employed for their alterative effects in bronchocele, scrofula, cancer, syphilis, blennorrhagia, leucorrhœa, and other disorders of a similar nature. It has also been recommended by certain eminent practitioners as an emmenagogue. Applied externally, it acts as a vesicant and discutient, staining the skin brown or orange, and causing itching, redness, and desquamation. Used as an ointment, it is absorbed, producing its characteristic effects. Inhaled, its vapour exercises an alterative action on the mucous membranes of the respiratory organs, which has been found very beneficial in cases of pulmonary phthisis. The principal officinal preparations are the *tincture*, consisting of iodine dissolved in alcohol; the *compound tincture*, iodine dissolved in a solution of iodide of potassium; *iodide of potassium*, the most used of any of its salts; *iodide of sodium*, which acts more energetically than the last, from containing eighty-five instead of only seventy-six per cent. of iodine; *iodide of ammonium*, which is more energetic than either, from being more easily decomposed; the *iodides of calcium and barium*, used as alteratives in scrofula; the *iodides of lead and cadmium*, employed in ointments in indolent scrofulous and syphilitic tumours; *iodide of silver*, in syphilis; *iodide of sulphur*, as an ointment in obstinate skin diseases; *iodide of iron*, which possesses the properties of both elements, and is much prescribed in scrofulous diseases of anæmic patients; and the *green, yellow, and red iodides of mercury*. Donovan's solution, a famous American remedy in syphilitic disorders, is composed of the iodides of arsenic and mercury in equal proportions. The *iodide of quinine* has been occasionally prescribed. *Iodoform* is also employed in bronchocele and scrofulous affections: it contains nine-tenths of its weight of iodine, notwithstanding which its taste is mild. The whole of these preparations are made by Messrs.

Huskisson; but it would, of course, serve no good purpose to describe their mode of preparation *in extenso*.

The first step in the manufacture is the rough iodine, which is produced from kelp or burnt seaweed. The various species of *Fucus* and *Ulva* thrown on the coasts of Scotland, Ireland, Guernsey, and Brittany by the waves of the Atlantic Ocean, contain the largest quantities of this valuable element, the richest weed yielding from eight to fourteen pounds per ton, while the poorest realizes no more than four or five pounds in the same amount. The principal manufacturers of rough iodine are Messrs. Paterson, Smith, and Ward, of Glasgow; Hughes, of Ireland; Tissier aîné et fils, and Cournerie and Co., of Cherbourg, Normandy. The annual amount of iodine produced in Scotland and Ireland is very great, a large proportion being exported to France and America. The fluctuations of iodine in point of price have been most extraordinary, the quotations varying from 4*d.* to 1*s.* per ounce in a single month. This has been caused by wealthy buyers holding back stock for better prices. Iodine is now at 3½*d.* and 3¼*d.*, which is lower than has ever been known. As met with in commerce, iodine is frequently adulterated with clay, alumina, &c.; but the loss oftener arises from its containing too much water. The amount of moisture is readily ascertained by a practised buyer, by pressing the sample between folds of blotting paper, or by sublimation, and noting the loss. The solid matter present is detected by dissolving the iodine in alcohol. Cyanide of iodine is also a frequent accidental impurity, which rises during sublimations and condenses in long white crystalline masses. Hughes's iodine is considered by most manufacturers to be the purest in the market, and always commands an advance of a halfpenny to a penny per ounce on that of other makers. Before Messrs. Huskisson undertook the manufacture of the salts of iodine, the principal source from which the largest supplies were drawn was the west coast of France and other parts of the Continent. The quality then met with in commerce was of a very uncertain character, often containing iodate and carbonate of potash, chloride of potassium, and iodide of sodium. The crystals were in irregular spongy deliquescent cubes, or in dog's-tooth crystals, which mostly changed to a yellow or pink colour. One of the members of the firm, Mr. William Huskisson, however, went to work, and thoroughly devoted his whole time and energies to the production of a uniform staple and permanent product. After repeated trials and experiments, which may be numbered by hundreds, he succeeded in discovering not merely one, but several processes which would effect the desired result, thus giving the manufacturer a choice of methods according to the different materials he has to work upon. One method peculiar to this firm is to procure pure hydriodic acid in the first instance, by decomposing iodide of zinc with oxalic acid, and then to form the salts as they may be required. This process of obtaining pure hydriodic acid has certain advantages over the ordinary method of distilling iodide of potassium with dilute sulphuric acid. Another method is by passing sulphuretted hydrogen into a concentrated solution of iodine. The process of obtaining iodide of potassium by the decomposition of iodide of calcium with sulphate of potash originated with this firm, and produces excellent results. The samples of iodide of potassium crystallizing in the vats at Messrs. Huskisson's works are amongst the most beautiful objects in chemical manufactures. These ivory-like cubes are often from one and a half to two inches square, and will with care split into laminæ as thin as writing-paper. The large cubical crystals shown at the International Exhibition by the firm were thought by many to be picked samples; but larger and more perfect cubes are every day turned out of the crystallizing vessels in hundreds. The plant for iodide of potassium is capable of producing seven hundredweight weekly, of which our Transatlantic brethren take about five tons annually. Mr. William Huskisson has made the study of crystallography peculiarly his own, and uses it daily to determine the purity of any particular salt by a mere glance at its colour, opacity, sharpness of angle, size of crystal, &c., without being obliged to have recourse to the test-tube. Messrs. Huskisson also make large quantities of re-sublimed iodine, to the extent of two to three hundredweight per week. We have lingered so long over the iodides, that we have but little time left for the consideration of their brethren, the

bromides. The bromides are very similar in most of their properties, both chemical and therapeutical, to the iodides. The best bromine is obtained from France, being freer from chlorine and iodine than that procured from other sources. Bromide of potassium is replacing iodide of potassium for many disorders, more especially those of a syphilitic character. Being almost the only makers of bromide of potassium, the apparatus for its production is very extensive, often yielding from two to three hundredweight weekly. Bromide of iron in solution has also been very successfully employed by various practitioners as a tonic alterative. Chloride of bromine is mentioned by Parrish as a powerful stimulant to the lymphatic system in minute doses. The use of iodic and bromic compounds in photography has not been alluded to, the subject having been treated of very fully in the CHEMIST AND DRUGGIST for 1861.

We have said nothing about the many admirable mechanical appliances used in Messrs. Huskisson's manufactory, feeling that the chemical portion of the subject would be far more interesting to our readers. It would be impossible to describe in detail the various crushing and stamping mills, boilers, evaporating pans, &c. &c., without going fully into the subject. Evaporation is carried on in jacketted pans, most of which are without seam or rivet, by means of coils of copper, iron, and lead pipes. The whole of the steam generated by the engine-boilers is utilized. After leaving the engines, it passes through coils of pipe contained in stills filled with water. As the water boils, the vapour is collected, and forms one of the sources of distilled water, this article being supplied to all those who deal with the firm gratuitously. In order to obtain a constant supply of water, Messrs. Huskisson have lately sunk a well into the chalk, many hundred feet deep, and capable of giving unlimited quantities of water containing a minimum of saline matter. High-pressure steam is also used as a heating agent with very economical results.

Concluding our visit by the examination of some choice specimens of crystals of different salts, we cannot help recurring to the old reflection, which we can hardly repeat too often, that the more the theoretical truths of science are brought to bear on practical manufactures, the more perfect will be the result.

The examination of the different processes carried on at Messrs. Huskisson's works has been a task of no ordinary lightness, involving many lengthy visits and conferences; and we should be most ungrateful did we not acknowledge publicly the debt of thanks that we owe to the firm generally for the facilities they afforded us of gathering the information we needêd, but most especially and particularly to Messrs. William and John Huskisson, jun., for the painstaking kindness with which they always received our visits, and placed their time and knowledge at our disposal.

MIST. CRETÆ CO.

BY BARNARD S. PROCTOR.

THE London Pharmacopœia directs chalk mixture to be made with prepared chalk; but the greater purity of precipitated carbonate of lime, its superior whiteness, and its perfect freedom from knots and sandy particles, are inducements to substitute the latter for the former article. But it is advisable, before adopting the change, to ascertain more carefully what advantages belong to each.

They both dissolve with about equal facility in dilute acetic acid, the prepared chalk leaving a small insoluble residue, while the precipitated affords a bright solution. The residue, however, is a matter of no importance, as it can only be said to affect the appearance of the solution; and as the chalk mixture is only used to neutralize acids in the stomach, the perfect solubility which would otherwise have claimed our attention is of no consequence, so long as solution is speedily effected.

Of two samples of the mixture, that prepared with precipitated chalk settles more speedily; so much so, that there is a probability of a portion of the chalk being left

behind in the vessel from which the patient takes his dose : and after the bottle stands for a few days, the precipitated chalk is less readily diffused through the mixture by agitation. These two circumstances, I think, should decide us in favour of the prepared chalk.

It is a common custom, and a very convenient one, to have the dry ingredients of the chalk mixture kept ready mixed, requiring only the addition of the water when it is to be dispensed.

In constructing a formula for "Pulv. pro Mist. Cretæ Co." there are two or three points to be kept in view :—Whether the powder should contain oil of cinnamon, and require only pure water to be added ; or, containing no oil, require to be mixed with cinnamon-water when used. If the oil is to be used, how much is the legitimate quantity, and how much gum should take the place of the mucilage.

When two drams of the essential oil are added to a gallon of water to make cinnamon-water, only part of the oil is dissolved, the remainder being separated by the subsequent filtration. Consequently, if two drams of oil of cinnamon are added to the ingredients for one gallon of chalk mixture, it will be disproportionately strong ; and the question is, how to allow for the portion rejected upon the filter in the ordinary mode of extemporizing cinnamon-water. In practice, about three-fourths of the quantity is found to give satisfactory results ; though it cannot be said to be identical with that prepared with cinnamon-water, as a portion of the oil remains, for a considerable time at least, attached to the chalk, the supernatant liquid having much less then the full flavour. The mixture, when shaken, cannot be distinguished from that prepared with cinnamon-water ; but if the powder be mixed with spirit before adding the water, the resulting mixture is more highly flavoured than if spirit had been added in equal quantity to ordinary chalk mixture ; a circumstance no doubt depending upon the spirit dissolving the oil from off the particles of chalk.

Oil of cinnamon by exposure to the air undergoes oxidation, being converted into cinnamic acid and a resinous matter. We may reasonably suppose that when it is absorbed by a large bulk of carbonate of lime, it will be more prone to such a change, from the well-known power which porous bodies generally have to promote the oxidation of organic matter ; but for practical purposes it may be considered not liable to any important change, a sample which I have had for six months not being distinguishable from that which was freshly prepared from the same formula. The proportion of gum is little more than one ounce for three fluid ounces of mucilage. The following formula will be found satisfactory :—

R. Pulv. Cretæ Preparatæ . . .	℥xii.
„ Sacchari Alb. . .	℥ix.
„ Gum Acaciæ . . .	℥xiii.
Ol. Cinnamomi . . .	f.℥ss. Mix.

Thirty-five grains with an ounce of water makes chalk mixture. Or, if preferred, omit the oil of cinnamon, and mix the powder with cinnamon-water when dispensing.

11, Grey-street, Newcastle-on-Tyne.

OBJECTS FOR THE SHOP-WINDOW.

BY THE EDITOR.

I. CHEMICALS.

In the leading article of our May number, we animadverted upon the inadequate manner in which the calling of the Chemist and Druggist is represented in that important advertising medium, the shop-window. We complained of the want of taste and judgment shown by many of our brethren in substituting huge empty jars, ill-assorted sundries, regiments of covered bottles, and stacks of pill-boxes, for the beautiful and

curious products of art and nature which are included in the *Materia Medica*. Our promise to return to this subject, and to give some practical hints respecting the preparation, selection, and arrangement of show-articles, has not been forgotten; but its fulfilment has been somewhat delayed, in consequence of our having been compelled to devote so much space to reports of trade meetings, and to correspondence relating to questions of vital importance.

During the last few months we have greatly extended our observations, and our previously-expressed opinions as to the meanness and ugliness of shop-window displays have been fully confirmed. Pharmacutists and non-pharmacutists, so often at variance, agree in making the outward signs of their trade as repulsive as possible. We could name many members of either class who exhibit to the public collections of goods extremely suggestive of that of a certain needy Apothecary—

"A beggarly account of empty boxes,
Green earthen pots, bladders, and musty seeds,
Remnants of packthread, and old cakes of roses,
Were thinly scattered to make up a show."

This neglect of externals must be injurious. Let us suppose that a unit of the intelligent public has a prescription for a draught, and that he is on the look-out for a dispenser. Here are two Chemists' shops close together. X displays in his window, a heap of dusty Iceland moss, a few syringes in dead pewter, a dish of greasy capsules, a couple of large show-jars containing nothing particular, corn-plasters in abundance, Preston salts and black draughts, hair-oil and bear's-grease, and numerous bottles and boxes enveloped in badly-printed handbills. His rival Y shows a series of very fine chemicals, some curious specimens of drugs under glass shades, a pretty assortment of perfumery articles, a selection of excellent sundries, and samples of most of the well-known patent medicines, all arranged with admirable taste, and forming a really attractive and interesting collection. Now, into which shop is the unprejudiced unit of the intelligent public most likely to enter? We should say, into that kept by the shrewd Y, who does not hide his light under a bushel. No Chemist can afford "to sink the shop," or to neglect that portion of it which is exposed to the critical gaze of the public.

In dressing a shop-window, it is necessary to consider the class of customers to be attracted. Objects that would be very suitable for a West-end window would probably be unsuitable for an East-end one. What would attract St. James might repel St. Giles. Still, neatness is recognized everywhere, and beautiful forms and colours are admired by all classes. The Chemist in the very lowest neighbourhood should aim higher than the puffing tradesmen by whom he is surrounded. His shop-window should exhibit some signs of that education for which the humbler classes have so much respect, and which they naturally expect in their general adviser the Chemist.

We think our readers will admit that chemicals are not out of place in a Chemist's shop-window; yet how seldom are they seen there! The cheesemonger exhibits cheeses; the baker, loaves; and the grocer, groceries: but the Chemist carefully secretes his chemicals, and shows to the world the works of the potter, the glass-blower, and the brushmaker. Yet under the head of Chemicals are forms of great beauty, and colours which rival in brilliancy those of the gayest flowers. How is it, then, that chemicals are so persistently kept in the background? Every reader has probably two or three answers ready:—"The trouble of preparing specimens is too great for a busy man to undertake." "The sale of pure chemicals forms an insignificant part of the Chemist's business." "The raw materials for making rare chemicals are too expensive." These three reasons against the exhibition of chemicals are perhaps the strongest that can be urged, but we do not admit their validity. Good specimens can be prepared with very little trouble during those spare intervals which occur in the work of the busiest Chemist. For instance, in crystallizing a salt, a few minutes only are required to prepare for the processes of solution and filtration; and when these processes have been satisfactorily performed, time and the natural forces may be left to complete the work. Then as to the small demand that exists for pure chemicals, we cannot accept this as

an objection of much weight. There is no demand for the elaborately-stitched coloured morocco boots we see in the bootmakers' windows, or for the hundred-bladed knives displayed by the cutlers. These show-objects are merely examples of fine workmanship, and are exhibited to prove that the makers are able to execute any orders that may be entrusted to them. In precisely the same way, a series of fine laboratory products displayed in a Chemist's window is simply intended to show that the exhibitor brings ample knowledge and skill to bear on the ordinary operations of Pharmacy. Lastly, as to the expense of raw materials, we will just state that the largest and most perfect crystals we have ever examined have been prepared from crude commercial salts which cost next to nothing.

The following list of chemicals is compiled from an actual collection of fine specimens. The greater number of them are in crystals, but a few are powders of vivid colours:—

Chrome-alum, iron-alum; soda, potash, or ammonia alum. In gigantic octahedra.

Nitrate of potash, chromate of potash (lemon-yellow), bichromate of potash (red), ferrocyanide of potassium (very large, yellow), ferridecyanide of potassium (garnet-red), iodide of potassium (shining semi-opaque cubes), boro-tartrate of potash, picrate of potash, oxalate of potash.

Nitrate of soda, borate of soda (very large, semi-transparent), potassio-tartrate of soda, phosphate of soda.

Benzoate of ammonia, oxalate of ammonia, Claudet's ammoniacal salt.

Sulphate of copper (very large, deep blue), ammonio-sulphate (fine blue powder), acetate of copper, chloride of copper, carbonate of copper, hydrated oxide of copper, arsenite of copper (Scheele's green), aceto-arsenite of copper (Schweinfurt green).

Citrate of iron, ammonio-citrate of iron, citrate of iron and quinine, potassio-tartrate of iron (all scale preparations); protosulphate of iron, ammonio-chloride of iron.

Iodide of lead (golden yellow scales), chromate of lead, dichromate of lead, chloride of lead, acetate of lead.

Binioidide of mercury (red scales), acetate of mercury, chloride of mercury, bichloride of mercury, binoxide of mercury, bisulphide of mercury.

Iodide of tin, bisulphide of tin.

Iodide of antimony, oxysulphide of antimony.

Sulphate of zinc, acetate of zinc.

Chloride of chromium (splendid peach-coloured crystals), oxide of chromium, chromic acid.

Nitrate of nickel, chloride of nickel.

Benzoic acid, boracic acid, gallic acid, oxalic acid.

The crystallized alkaloids.

Mannite, alizarine, acetate of rosaniline, purified indigo, isatine, &c.

We give the above, not as a complete catalogue of chemicals suitable for window display, but simply as a short list of extremely beautiful and easily-obtained products which may save the reader some trouble in selecting.

The following extract from Mr. Greville Williams's comprehensive *Handbook of Chemical Manipulation* will afford our readers some valuable hints for the production of fine crystallized specimens:—

"It is difficult to lay down any general rule for obtaining crystals; that which is generally given in books—namely, to evaporate the solution requiring to be crystallized until a pellicle forms, and then set aside—is, it is true, adapted for most cases which occur in rough technical operations, but as a means of operating in research it would be difficult, perhaps, to find a worse guide. Liquids evaporated until a pellicle forms, generally, in fact almost invariably, give a confused irregular mass of crystals: where it is merely required to obtain a large crop, and size is not an object, the rule may be said to answer, but in no other case.

"The methods by which very large crystals are procured differ generally in minute but essential points, according to the habitudes of the salt worked upon. Some are readily obtained without much trouble; others, on the contrary, are extremely difficult

to procure in large crystals which show distinctly the characteristic form. Of all classes of salts, perhaps the alums are most easily managed in this respect. Gigantic crystals, in regular octahedra, the longer axis five inches long, are to be seen in some museums. Chrome-alum is particularly easy to procure in fine crystals. In the process for making valerianic acid by oxidation of fusel-oil with bichromate of potash and sulphuric acid, it is by no means uncommon to obtain chrome-alum crystals one inch in length along the chief axis. But when substances are obtained in such extremely large specimens, it is generally at a sacrifice of perfection in form; they are frequently covered in certain directions with striæ, or the solid angles are not sharp at the extremities. This must be submitted to as unavoidable, unless a large quantity is made, so as to permit selection of the best.

"If a saturated solution of chrome-alum is allowed to deposit its first crop of crystals, and the mother liquid is set aside to evaporate spontaneously, at the end of a few days a number of crystals will be found, some of perfect shape; these are to be selected and put into a shallow vessel by themselves, being every day turned with a piece of wood on to a different face. At the expiration of every few days, the liquid is to be replaced by a fresh, cold, saturated solution.

"Many other solutions give almost equally fine crystals, especially sulphate of copper, and common or even iron alum.

"Crystallization is dependent upon the change from the fluid to the solid state; and it is the mobility among the particles conferred by fluidity that, enabling the forces to act freely, causes bodies to assume the crystalline form. The more slowly this change is effected, the greater the freedom with which the force is exerted, and consequently the greater the regularity of the crystal. If, therefore, in ordinary crystallization it is desired to have a crop the characters of which shall be well developed, every precaution must be taken to retard the cooling: the slower this takes place, the more successful will be the operation."

In addition to the above remarks of Mr. Greville Williams, we may reprint the following passage from the article "Crystallization" in Watts's exhaustive *Dictionary of Chemistry* :—

"To obtain crystals as large and regular as possible, Leblanc recommends to allow a solution not quite saturated to cool slowly, so that none but distinct crystals may be formed; then to pick out the best formed of these, and lay them, separate from one another, in a solution of the same salt, which by gentle warming in contact with the salt has been made to hold in solution a quantity of it just a little greater than that which it can contain at the ordinary temperature, so that it may deposit this excess on the crystals laid in it. This treatment is repeated until the crystals have obtained the desired magnitude, care being taken to turn them frequently, because the surfaces resting on the bottom are in a less favourable position than the others for taking up fresh particles. The trouble of repeatedly preparing a slightly super-saturated solution may be saved by suspending in the upper part of the liquid a quantity of the salt contained in a bag of muslin or in a funnel. Irregularly-developed crystals may also be brought to regular shape by covering the fully-developed surfaces with wax, so that only the faces which require further development may come in contact with the solution."

Crystals and scale preparations may be displayed under small hemispherical glass shades on ebony or stained-wood stands. If the specimens are small, they may be placed in large test-tubes. Every specimen should be neatly labelled; in fact, it should be mounted as for a museum. If our readers will set to work in earnest to reform their shop-windows, we may yet hope to see some such interesting and beautiful displays in our public thoroughfares as we saw last year in the Chemical and Pharmaceutical Class of the International Exhibition.

Next month we shall have something to say about Drugs.

NEW REMEDIES.

HELONIAS DIOICA.

SYNONYMS.—*Chamelirium lutea* (Gray); *Chamelirium Carolinianum* (Willd.); *Helonias luteum* (Aiton); and *Veratrum luteum* (Linn.). Blazing Star, Devil's-bit, False Unicorn.

This is a small perennial herbaceous plant, indigenous to the States of North America, where it is met with from New England to Georgia. It occurs abundantly in some of the Western States, growing in woodlands, meadows, and moist situations. Its generic name appears to be derived from a Greek word signifying a swamp, it being partial to swampy localities.

BOTANY.—The root, which is the part employed medicinally, is bulbous. The stem is smooth and wand-like, from one to three feet high, arising from the root-stalk, which is abrupt and thick, and terminated by a long and wand-like spiked raceme of small, white, bractless flowers, the fertile plant being more leafy than the staminate. The leaves are flat and lanceolate, the lowest spatulate and tapering into a petiole. It is a member of the natural family *Melanthaceæ*—the *Melanth* or *Colchicum* order.

CHEMISTRY.—It appears to consist principally of extractive, oleo-resin, bitter principle, starch, gum, &c. One of the so-called concentrated preparations termed *Helonin* is obtained from it. It is described as consisting of the oleo-resinoid matter in combination with the bitter principle. It is a deep-brown granular substance, very bitter to the taste, but without acidity, and entirely soluble in the mouth, and generally so in cold water, with which it forms a blackish green, opaque solution of great bitterness. It is insoluble in alcohol. As prepared by Messrs. Tilden and Co., it is reported to be a very eligible preparation; but much of the substance sold as *Helonin* is nothing more than a mixture of the powdered root with common salt and the powdered hydro-alcoholic extract; and this when mixed with water is for the most part quite insoluble, forming a light yellowish mixture, which is only slightly bitter to the taste, and compared with that prepared by Tilden and Co. nearly inert.

MEDICINAL PROPERTIES.—This remedy has been long employed in popular practice in many parts of the Northern States of America as a bitter tonic, anthelmintic, and emmenagogue: and in Ohio, and many parts of the Western States, it is said to be in general use as a common emetic, operating with great certainty, but more activity than *ipecacuanha* or *eupatorium*. Dr. Lee, however, remarks, "Whether it has any specific emetic powers may well be doubted; further trials are needed to settle this point. All bitter vegetable infusions, given freely, will cause emesis, as *boneset*, *chamomile*, &c. That it has any true anthelmintic or vermifuge properties remains also to be ascertained, or, at any rate, more than it enjoys in common with all simple bitters. After worms have been evacuated, it is an excellent corroborant to prevent their return; but no better than *gentian*, *buckbean*, and *gold thread*." This remedy belongs to the class of simple bitters, but differs from several of the same class in containing no sugar, more starch, and less gum. It contains no volatile oil (except in combination with resin), and neither tannin nor gallic acid. It is stated to be beneficial in colic and in atony of the generative organs, to act as a uterine tonic in *leucorrhœa* and *amenorrhœa*, and to remove the tendency to repeated and excessive miscarriages.

Dr. Braman found it peculiarly efficacious in atony of the generative organs, and obtained great advantages from its employment in *leucorrhœa*.

Dr. Thomas Close, of Portchester, N.Y., employed it beneficially in *anasarca* and abdominal dropsy, and writes, "In my own case it has proved a valuable remedy, having suffered for three or four years with dyspnea, a sequel of spasmodic asthma, to such an extent that really life has been but a compromise between starvation and suffocation; for, indulging in food enough to keep up any degree of strength rendered the difficulty of breathing almost insupportable. Since I began the use of the *Helonias*, I have found the difficulty gradually lessen, and I am now able to eat and breathe with comfort; and

* Tilden's Mat. Med., vol. ii., p. 123.

my strength is not only much greater than it was when I began its use, but rapidly improving." *

Dr. Lee † writes—"Numerous trials have satisfied us that it has a specific action on the uterine organs, an alterative regulating influence over their functions. Hence, in amenorrhœa, marked by general atony and an anæmic and torpid condition of the system, this plant proves of great service, giving tone to the digestive organs, favouring nutrition and sanguification, and promoting the secretions generally. So also in leucorrhœa, associated with a similar condition of the general system, it will be found equally serviceable. Its influence as a uterine tonic is also well marked in cases of atonic or passive menorrhagia. Here, by imparting tonicity to the muscular fibres of the organ, and by a stimulating power over the plexuses of organic nerves which supply the pelvic viscera, the exudation of blood is checked, and the predisposing as well as proximate cause of the disease removed. If it has the power of obviating sterility and impotence, as alleged by some writers, it must be by a similar mode of operation." "It is very probable, also, that in cases of dysmenorrhœa, and liability to abortion from atony of the reproductive organs, it may prove highly advantageous by a similar mode of action, just as we find in the case of iron and other tonics which improve the general health. But, in addition to this, it would seem to be endowed, to a considerable extent, with specific properties and powers." Dr. Lee further adds, "As a simple stomachic tonic, it will be found not only wholly unobjectionable, but highly useful. It has been used in many cases of general dropsy with marked success, particularly in persons of lax habit, broken constitution, and general debility. The results are, doubtless, partly due to the increased tone imparted to the capillary system, and partly to its stimulating the absorbent functions—an effect common to it and other bitter tonics. It would seem, however, to possess, in addition, decided alterative and deobstruent properties, influencing secretion and excretion to a greater extent than tonics generally." According to Pursh, the root was employed as a remedy in colic; and it has proved efficacious in the hands of others as a remedy in atonic dyspepsia, convalescence from fevers and other acute diseases, and also in the latter stages of dysentery, &c.

PRINCIPAL PREPARATIONS AND DOSES.—The following preparations are made by Messrs. Tilden and Co., and are enumerated in their book of Formulæ, with the doses appended:—*Helonin* gr. ss. to gr. j. *Fluid Extract*, 3j to 3iij. The latter was employed successfully by Dr. Thomas Close, of Portchester, and is perhaps generally to be preferred for administration, combining, as it does, all the active principles in a very concentrated form. Dr. Braman gives the powdered root in doses of ʒjss. three times daily. A syrup and tincture of the root are also sometimes employed.



UNITED SOCIETY OF CHEMISTS AND DRUGGISTS.

In consequence of the continuance of country meetings of the trade, protesting against the proposed New Medical Act, and the large amount of correspondence from all parts in reference to the same, the Executive Committee deem it expedient to defer the London Meeting until the 24th of November, on which occasion they will be glad to see all those who are interested; the time and place to be duly announced. Reports of the following meetings have been received since our last:—

HUDDERSFIELD.

At a meeting of the United Society and the Trade at the Queen's Hotel, Huddersfield, on the 7th ult., for the purpose of considering the ultimate design and recent action of

* Tilden's Mat. Med., vol. ii., pp. 297, 298.

† Ibid. pp. 122, 123.

the Committee of the Medical Council, the subjoined resolutions were earnestly and unanimously carried:—

"1st. That the fact that there are several things in the existing Medical Acts requiring amendment cannot be disputed; but when a few individuals suggest a course of legislation affecting the character and ignoring the rights of a body of at least 30,000 tradesmen, they may be well assured such an Act will arouse indignation, and unite in common effort all persons concerned, for the maintenance of their own interests and the preservation of their own character.

"2nd. That an Act of Incorporation, either in conjunction with the Pharmaceutical Society, or without it, is manifestly the desideratum of the trade, and that this meeting would urge upon Chemists and Druggists the attainment of this object as speedily as possible.

"3rd. That a copy of the above resolutions be forwarded to Sir Francis Crossley, member for the West Riding, and E. Leatham, Esq., member for the Borough, along with the July number of the CHEMIST AND DRUGGIST (Journal), and such other information as may be deemed necessary to afford them every opportunity of being conversant with the facts and bearings of the case."

The resolutions at the meeting were signed by Messrs. W. P. England, A. Tryor, Robert Fell, Charles Flocton, Robert Hill, J. Chaplin, M. Wood, W. T. Bygott, Jno. Brook, W. C. Oates, and T. N. Swift, Local Secretary.

Mr. Swift having forwarded the resolutions, &c., to the Parliamentary representatives, has received a kind reply from Sir Francis Crossley, M.P., promising his support, and also the following letter from E. A. Leatham, Esq., M.P.:—

Bank, Wakefield, 25th Sept., 1863.

DEAR SIR,—I am duly in receipt of the copy of resolutions passed by your meeting, and also of the CHEMIST AND DRUGGIST Journal. I have looked into the matter, and it appears to me that the Bill is arbitrary and oppressive. The object, no doubt, is to prevent unqualified persons from making up medicines, and to preclude the sale of deleterious quack medicines; but I should hope that the protection of the public may be made compatible with the protection of existing interests. I think that the best course for your Association to pursue will be to memorialize the Government, and call the attention of M.P.s throughout the kingdom to the subject. I shall be glad to render you any assistance I can in the House, but think that you should depute some member conversant with the details of your business specially to watch the measure.

Believe me, dear Sir, yours very faithfully,

E. A. LEATHAM.

Mr. T. N. Swift, Huddersfield.

WALSALL.

A meeting of Chemists was held at Walsall on the 25th ult. Present—Mr. Hazledine, Local Secretary; Mr. Hubbard, Mr. Sneyd, Mr. Shore, and Mr. Hobson.

On the motion of Mr. Hazledine, seconded by Mr. Hobson, Mr. Hubbard was called upon to preside.

Previous to commencing any business, Mr. Hazledine stated that he had waited upon every member of the trade, and each had expressed himself in favour of the object of the meeting. Mr. Highway and Mr. Grove would have been present, had not particular business taken them from home. Mr. Walker had promised to attend, but no doubt some business had prevented his doing so; and Mr. Taylor could not leave his establishment, having no one to superintend at home.

The Chairman, on opening the proceedings, expressed his surprise and regret that the Medical Council should desire to interfere with the rights of the existing Chemists and Druggists, and hoped they would be defeated in the attempt.

Mr. Hobson proposed, "That, in the opinion of this meeting, the attempt of the Medical Council to prevent Chemists and Druggists who are at the present time in and carrying on business is both impolitic and unjust, and that every possible opposition be offered to that clause in the Bill."

This resolution was seconded by Mr. Shore, and carried unanimously.

Mr. Hazledine proposed, "That a deputation be appointed to wait upon Charles Foster, Esq., the member for the Borough, and state the views of the trade here with respect to the Bill of the Medical Council, and request him to oppose the same in the House of Commons."

Mr. Sneyd seconded this, and stated that he was quite in favour of the Act of Incorporation for the whole trade, but thought some clause ought to be introduced into the Act to prevent the sale of pills, powders, &c., by persons at stalls in public markets, which practice had become a great nuisance; and also to prevent hucksters, greengrocers, and others of the same class, from selling laudanum and other drugs, to the great danger of the poorer classes, and injury of the respectable Chemists and Druggists who had served a regular apprenticeship to the trade.

A Committee, consisting of Mr. Hazledine, Mr. Hubbard, Mr. Hobson, and Mr. Sneyd was appointed.

Mr. Hazledine then proposed a vote of thanks to the Chairman, which was seconded by Mr. Sneyd, and to which the Chairman briefly responded.

Previous to breaking up, it was suggested that if all the trade would contribute the sum of 1s. each, a sum of £1,000 to £1,500 would be raised towards a Parliamentary opposition, or to pay the expenses of the Act of Incorporation, whichever might be required.

STAFFORD.

At a meeting of the Chemists and Druggists held at Stafford on the 28th ult., the following resolutions were unanimously adopted:—

"1st. That they recognize the desirability of giving all possible encouragement to educational and scientific qualification for the trade of a Chemist and Druggist; but they consider themselves, in common with their brethren, quite competent to accomplish all needful reform in their body, and indignantly repudiate the 56th, 57th, and 58th clauses of the Act, proposed by the Committee of the Medical Council, as being unjust, and an unwarrantable attempt to interfere with their rights as independent citizens.

"2nd. That an Act of Incorporation, based upon a recognition of existing rights, and subjecting every future candidate for the trade to an educational test, as suggested by the Executive Committee of the United Society of Chemists and Druggists, is most desirable, and they would urge upon the trade the necessity for a combined and determined effort for its attainment.

"3rd. That a copy of these resolutions be forwarded by their Local Secretary to Captain Salt and Mr. Alderman Sidney, their Borough members, with a request that they will withhold their support from any measure affecting the interests of Chemists and Druggists which has not the sanction of the trade."

Amongst those taking part in framing the foregoing resolutions were Messrs. J. and H. A. Averill, Fowke J. Aston, James Marson, T. O. Hanthorne, and John Allwood.

WREXHAM.

At a meeting of the trade held at this place, similar resolutions were unanimously adopted, the following gentlemen taking a part in the same:—Messrs. Rowland, Nokes, Francis, Price, Jones, and J. F. Edisbury, Local Secretary, who has received the subjoined letter from the Borough member:—

DEAR SIR,—It will afford me much satisfaction to comply with the wishes of the Chemists and Druggists who have signed the resolutions you have forwarded to me, so far as I can consistently with my public duty.

I am, yours very faithfully,

TOWNSHEND MAINWARING.

Further meetings, we understand, are about to take place at Manchester, Hull, Ashton-under-Lyne, &c.

LAW AND CRIME.

LINTING MACHINES—TAYLOR'S PATENT.

An application was lately made to the Committee of the Privy Council for an extension of a patent granted to W. G. Taylor in 1849, and entitled "Improvements in Lint and Linting Machines;" the words "in lint" having, however, been subsequently disclaimed. We extract from the *Practical Mechanic's Journal* the following report, reminding our readers that the hand and machine processes of linting were popularly described in an article entitled "Touching Lint" which appeared in the second volume of our journal:—

"The object of Taylor's invention was the production, in a more rapid and economical manner than heretofore, of that description of raised pile fabric called lint, and which is chiefly used for surgical and therapeutical purposes. It was stated that the advantages of the invention consist of the great superiority as to quality of the lint manufactured under the patent over lint manufactured by hand, and of its greater cheapness. In hand-made lint different qualities and lengths are placed in the same parcel; but the lint manufactured by Taylor's machinery is of uniform quality, the pile being of the same length throughout, and the lint itself of any required length up to fifty yards. Of the old methods of making lint, that most commonly employed was by means of a knife fixed horizontally in a framework: a vertical downward motion was given to the knife by a treadle worked by the foot, and the action of a spring caused the knife to rise again; whilst the cloth was being drawn over a wooden bed or ledge, by the hand, the descending knife cut through the fibres, and the workman, drawing the fabric towards him, raised the pile. Besides being slow, this method required considerable skill on the part of the workman in regulating the amount of pressure of the knife upon the cloth; because

unless great care was used, the knife would enter too far into the cloth, or cut through it entirely.

"Mr. Taylor, seeing the imperfections of existing methods of making lint, after devoting much attention to the matter, contrived the machine for which he obtained the patent in question. Steam or water takes the place of manual labour, except the small amount required for introducing fresh cloth on the machine. Formerly each of the rude machines before described, required a person to attend to it; but fifty of the improved machines can be superintended by one person. There could be no doubt of the novelty of the manufacture, and the superiority of the product; but, owing to the prejudices of the public, some time elapsed before the machine-made lint could be brought into use. Moreover, the inventor had incurred a large loss by reason of disagreements with his exclusive licensees, and of their bankruptcy. Litigation with infringers had also resulted in a considerable expenditure. The petitioner's accounts showed a balance of profit to the amount of £1,147, which would have been greatly larger if the adverse circumstances previously mentioned had not occurred. This remuneration was alleged to be inadequate to the merit of the invention, and the petitioner consequently sought to obtain an extension of his patent rights for the term of seven years. The application was opposed. Evidence was laid before the committee in support of the petitioner's case, when it appeared that in 1856 the petitioner had agreed with his son to relinquish the manufacture of lint in favour of the latter, who was to pay his father £200 a year, which had been duly paid ever since. It further appeared that the patentee and his son had entered into an agreement, in 1859, with Messrs. Waithman and Co., which recited that Waithman and Co. claimed the right to manufacture lint by machinery for which they had obtained a patent, and that they had carried on the manufacture under the patent. It was further recited that it had been agreed that Taylor the younger should alone continue the manufacture of lint upon the terms after mentioned; viz., that Waithman and Co. should cease to manufacture lint, and should not divulge any process known to them for the manufacture, but would use their best endeavours to keep the same secret; that they would not thereafter manufacture any cloth used in the manufacture of lint; that the elder Taylor would not permit any person except his son to manufacture lint by machinery according to the patented process; that the younger Taylor would continue the manufacture of lint by machinery for the term of ten years from the date of the agreement, and would pay to Waithman and Co., monthly, a sum of money, to be calculated at the rate of a penny per lb. upon all lint (excepting that made solely from cotton) sold by him, a minimum quantity of 600lb. being supposed to be sold weekly.

"When the Privy Council became acquainted with the contents of this agreement, they stopped the case, saying it was equivalent to an exclusive licence for ten years from 1859, a period extending much beyond the grant of the original patent. Moreover, they said that, in the agreement with his son, the petitioner had put his own value upon the patent and had received that value. Under the circumstances, they should consider it right to refuse the application."

CAUTION TO ADVERTISERS.—HOPCRAFT v. BETTS.

At the City Sheriffs' Court, on Thursday last, was tried the case of Hopcraft v. Betts; plaintiff being described by his own clerk as a printer, publisher, proprietor of the *Commercial Daily List*, and contractor for Government advertisements; and defendant being an auctioneer and surveyor, of Leadenhall-street. Mr. Buchanan, for the plaintiff, said that the present action was brought to recover £9 15s. for advertisements inserted in the *Commercial Daily List*. The defendant had given his order, and now sought to back out of his contract. The plaintiff had fulfilled his part of the bargain, and all he wanted was the money. The order was for six months' insertion of an advertisement, as "now appearing" in *The Grocer*, for 1s. 3d. each insertion.

Mr. Shaw said: I am clerk to the plaintiff. Defendant gave me a copy of the original order after he had taken one. I lost the original order. The advertisement was to have been a *fac-simile* of one which had appeared in *The Grocer*. It was inserted for six months.

Cross-examined: I do not know the circulation of the *Commercial Daily List*. Plaintiff is a publisher, printer, and Government contractor. He contracts for the Government advertisements. The original order was surreptitiously removed from my pocket-book. I took it to show to the defendant, and he made a copy. When I came away, I went to the office, and then missed it.

Mr. Denny (counsel for defendant): Do you dare to say that defendant took it?—Witness: He may have done so. It was not in my book when I got home. It is open to doubt.

Mr. Denny: Did you ever represent the circulation of this precious paper at 15,000

or 20,000 daily?—Witness: No. I cannot tell what is the circulation. Here are the books, and you may judge for yourself. The circulation ranges from 500 to 1,000 daily. I will swear it is over 300, but I cannot say how much.

Plaintiff's canvasser: I called for the advertisement, and I said that the paper had a large circulation. I do not think I said 15,000 or 20,000 daily, because I did not know, but I will not swear I did not say so.

This being the plaintiff's case, Mr. Denny denounced the conduct of the plaintiff's agents in this matter, and he declared that no respectable house would tolerate such conduct on the part of its servants, except this miserable office. An attempt has been made to introduce *The Grocer*, but that journal surely could have nothing to do in such a case as the present. It was quite clear defendant had been a deceived contractor, and, as such, was entitled to a verdict.

Mr. Betts said: I am an auctioneer, of 68½, Leadenhall-street. I remember one day that a person called on me, and said he was desired to wait upon me by Mr. Hopcraft. A number of persons, he said, had seen my advertisement in *The Grocer*, and had written to Mr. Hopcraft as to my respectability. This canvasser wished to insert a paragraph, because it would cost Mr. Hopcraft a large sum to answer all such inquiries by post. I acceded to the request, and the canvasser then asked for an advertisement. I said that I advertised in *The Grocer*. He replied that *The Grocer* was not of much account, and that the *Commercial Daily List* had a most extensive circulation of at least 15,000 or 20,000 daily. I laughed at this.

His Honour: Why did you laugh? Did you not believe it?—Defendant: No.

His Honour: Where is the false pretence then?—Defendant: He assured me of the truth of his assertion in so plausible a manner that I did believe him at last. He said that the *Commercial Daily List* had a most extensive circulation in Liverpool, Manchester, and Bristol. All the wholesale houses in the City took it, all the large shippers had it, and it was in great request amongst the wholesale grocers. Upon this I gave the order. Subsequently I found that it was not filed at Deacon's or another City news-rooms, and several wholesale houses at which I applied knew nothing of it. Then I withdrew my advertisement. I was very much dissatisfied with a puff inserted by plaintiff two days after my countermand.

Cross-examined: I thought the circulation was extensive.

Mr. Buchanan: The puff was worth £50.

Mr. Leah (defendant's clerk), after graphically describing the manner of plaintiff's canvasser, said, "He told me the circulation was 15,000 to 20,000 daily."

Mr. Buchanan replied on the defendant's case, and urged that the gentleman had not been deceived. He had only given 1s. 3d. for each insertion for six months; whereas had the advertisement been a daily one, the price would have been 9s.

His Honour put this question to the jury: "Has defendant been deceived?"

Foreman of the Jury: No; and we find for the plaintiff for the full amount.

Verdict for plaintiff, with costs.

SUICIDE BY MEANS OF CYANIDE OF POTASSIUM.

On Saturday, the 3rd inst., Dr. Lankester held an inquest touching the death of a spectacle-maker, named James Lamb, living at 19, Chalton-street, Somers-town, which took place under very painful circumstances. It appeared from the evidence given in the course of the inquiry, that the deceased, who was a man of more than ordinary intelligence, became afflicted about two years and a half ago with a tumour on the under lip, which seemed like cancer, and that subsequently a similar swelling presented itself on the jaw near some of the glands of the throat. Latterly these tumours caused Lamb great pain; but he refused to consult a surgeon, having made up his mind that the disease was cancer, and that there was no cure for it. He mentioned to several friends that his father had died of cancer, and that the same malady would carry himself off; and on some occasions he bid persons good-bye in a very desponding manner. On Wednesday night (Sept. 30) he went to bed as usual, and, about five o'clock on the following morning, he remarked to his wife, "Another night of agony!" Mrs. Lamb then gave him some coffee, and he was tranquil. At between six and seven o'clock she was awakened by a noise in the shop adjoining the room in which she and her husband slept, and at the same moment she perceived that he was not in bed. She at once ran into the shop, and there found her husband seated before the bench at which he was in the habit of working; she heard a gurgling in his throat, and discovered that he was unable to reply to her appeals to him to tell her what was the matter. She sent for Mr. Wesley, the resident medical officer of the St. Pancras Dispensary, but when this gentleman arrived he found Lamb quite dead. Near him was a bottle and a tumbler, both containing cyanide of potassium. On a post-mortem examination being made, the

stomach smelt strongly of prussic acid, and contained cyanide. Mrs. Lamb said there could be no doubt that deceased knew cyanide of potassium was a deadly poison. She had not been aware that there was any of it in the house, but she now concluded that it was among some photographic chemicals which her husband had bought, for the purpose of "dabbling" in photography. The post-mortem examination further showed that deceased had not been afflicted with cancer, the swellings being serofulous tumours. There was, however, no doubt that it was the fear of death from cancer that had brought him to the desponding state of mind he was in when he took the poison. Dr. Lankester explained to the jury that when cyanide of potassium came in contact with organic matter it was converted into prussic acid, and observed that the use of this poison had become much more frequent in cases of self-destruction since John Sadleir committed suicide by its means. This might, however, be accounted for by the cyanide having become an article of more general use in consequence of the practice of photography. The jury found that the deceased, who was sixty-six years of age, had committed suicide while in an unsound state of mind.

ACCIDENTS.

POISONING BY MISTAKE.—A CHEMIST SEVERELY REPRIMANDED.

An inquest was recently held at Moxley, near Wolverhampton, before Mr. Hooper, coroner, on the body of John Albert Vann, aged six years, the son of an iron-roller. The evidence showed that the child had complained of a pain in the bowels, and his sister had been sent to a neighbouring druggist, named Woolley, for a pennyworth of tincture of rhubarb. The medicine, which was about a teaspoonful, was administered, and the child put to bed. Whilst taking it the child complained that it was very bitter. In about two hours and a half after the child was put to bed his mother heard a moaning noise, and upon going upstairs found the child lying upon his left side, and insensible, and with his eyes fixed. In about a quarter of an hour he said, "Oh, mamma, I am so giddy I cannot see. It is what the man sent that has made me so. Oh mamma, I shall die; and if I do, you hang that man." Mr. Woolley was sent for, and, prescribing an emetic, said the vomiting that would follow was to be kept up, and the child prevented from continuing asleep. The emetic acted, and an officious woman threw away the vomit. The child grew worse, and at four on the following morning, Mr. Larkin, surgeon, of Bilston, applied the stomach-pump; but the warm water injected returned uncoloured, and in five minutes the child was a corpse. Mr. Latham made a post-mortem examination. He found very large quantities of blood in the organs of the brain, and the blood generally in a very fluid state. The stomach was empty. There was no trace of poison in it, and all the vital organs of the system were healthy. He was of opinion that death had resulted from some narcotic poison. The child who had been sent for the tincture of rhubarb pointed out the bottle from which she had been served. This bottle proved to be the one in which laudanum was kept.

After the jury had deliberated, the coroner, addressing Mr. Woolley, said, that the jury had found a verdict to the effect that there was no direct evidence to show the cause of the deceased's death. Both the jury and himself felt that the medical evidence had to some extent failed. But there was no doubt in the minds of the jury, or in his own mind, that this child had died from having had poison administered to him that had been sold by him (Woolley) for tincture of rhubarb. Had the vomit been preserved, there would have been no legal doubt in the minds of the jury; and then he (Woolley) would have occupied a different position: but, inasmuch, as it had been thrown away, and the medical evidence had in consequence not been of sufficient strength to justify a verdict of manslaughter, a legal doubt had been occasioned, and, acting upon his instructions, the jury had given him (Woolley) the benefit. He had, however, to caution him in their names, and to remark upon the very serious consequences which might result from a repetition of such conduct. In the event of another accident happening through Mr. Woolley's dispensing, this case would be remembered. He was sorry to find, from inquiries he had made since last Friday, that it was not the first time he had sold poison by mistake. He should like the public to know clearly and distinctly that the poison had been sold by him in mistake, and he trusted that the censure he was then called upon to administer would exercise a salutary influence on his (Mr. Woolley's) mind, so that consequences of a more serious nature might not hereafter follow in that locality from the use of drugs which he (Mr. Woolley) might dispense. "There is no doubt whatever," continued the coroner, "that this child has been lost by the poison, but the jury give you the benefit of the partial failure of the medical evidence. Do consider that you are very seriously to blame, and that you deserve the reprimand that I have now given you." Mr. Woolley, who is a young man about twenty-five years of

age, who has been an articulated apprentice to a surgeon, was very much affected during the delivery of the coroner's reprimand, and burying his face in his handkerchief, gave free vent to his tears.

An esteemed Correspondent makes the following observations on this case:—"This occurrence is one of a class the frequent repetition of which is calculated to greatly shake the public's faith in the contents of Druggists' bottles. There is no saying whose turn will next come to be poisoned by the contents of a wrong flask. This time the melancholy accident has happened to the child of humble parents, but you have lately recorded an instance in which the victim was the wife of a gentleman holding high rank in the world of banking. The fact is, that society, high as well as low, lies too much at the mercy of men who have been brought up to another branch of business or profession, but think themselves competent to occupy a position behind a retail Druggist's counter. No sufficient precautions are taken to prevent confusion between curative and deadly compounds; corrosive sublimate is allowed to stand in a Druggist's shop on the same shelf with calomel, and laudanum is suffered to be next-door neighbour to more than one harmless tincture. With this arrangement, there is likely to be constant liability to poisoning by mistake; but with proper distinctions as to the shape as well as locality of bottles, together with further restrictions upon those who are incompetent or unqualified to vend drugs, the danger might be to a great extent averted, if not wholly removed."

DEATH FROM OIL OF BITTER ALMONDS.

An inquest has been held by the coroner for East Surrey, at Lambeth Workhouse, on the body of Sarah Taylor, aged sixty, a cook in the service of a Mrs. Carlin, of Brixton. From the evidence given by the coachman, it appeared that while removing some bottles out of the cupboard of the old house to the new one, the cook brought one bottle to him, and said, "What is this in this bottle?" He looked at the bottle, upon which was pasted a large written label, "Essential Oil of Bitter Almonds—Poison." He left her, and went upstairs to assist a woman taking down some curtains, and upon his returning downstairs he found the cook leaning over the sink and vomiting. He called for assistance, and supported her in his arms, and then laid her on the floor. He at once sent for medical advice. Three surgeons came at the same time. Mr. Wright, of Holland-place, the family doctor, took the case in hand. He said that he could detect a strong smell of bitter almonds. He attended her there four or five hours, during which time she remained insensible. The medical men had her removed to the infirmary of Lambeth Workhouse. Mr. Bullen, the medical officer of the workhouse, said he saw the woman when she was admitted into the establishment. He considered the case hopeless from the first. He did, however, all that was possible for her, but she died in fifteen hours after her reception into the workhouse. Miss Carlin said that she was living with her brother and his wife at Grove-place, Brixton. On the day in question her sister had gone to Brighton, leaving the cook (the deceased), the coachman, and herself at home. In clearing the bottles out of the cupboard there was found another cupboard behind, in which was the bottle (a pint measure) containing the essential oil of bitter almonds; and it was unknown to the servants that it was kept in the house. It was used for the flavouring of pastry, and, judging from the quantity deficient in the bottle, she should say the deceased had drunk about half a cupful of the essence. Her opinion was that the unfortunate woman had first smelt the essence, then tasted it, and, liking it, had taken enough to destroy her life. She believed she had not the least idea of committing suicide. Adamson, the summoning officer, said, from the inquiries he had made, he did not believe the deceased contemplated suicide; and after an able summing up by the learned coroner, the jury returned a verdict of "Accidental death from taking essential oil of bitter almonds, without any intention of destroying life."

FOUR PERSONS DROWNED IN CARBONIC ACID GAS.

On the afternoon of Friday, the 9th inst., four persons were killed at Leicester by carbonic acid gas evolved from fermenting grains. It appears that at the back of some premises adjoining the Blue Boar public-house in Southgate-street is a grain-bin, about seven feet deep, which recently has been converted to such purposes after being used as a rain-water cistern. A large quantity of grains had been stowed into this pit and well pressed down. About two o'clock (on Friday), a man named Charles Gregory, seventy-seven years of age, went to the pit and opened it for the purpose of taking out a quantity of grains. He lifted up the trapdoor and descended, but does not appear to have discovered that there was foul air in it. He became insensible and fell. His daughter, Charlotte Gregory, thirty-one years, saw her father in this position, and went down to rescue him. She also grew faint and fell among the grains. The alarm was

given, and two men, Charles Freeman and Joseph Tacey, the landlord of the Garibaldi public-house in High-street, seeing no danger, descended into the pit. They also fell powerless to the bottom. The presence of carbonic acid gas was at length suspected, and other means were quickly devised of raising those who had fallen into the pit. Hooks were procured, and the bodies were drawn up. The assistance of two surgeons (Messrs. Fullagar and Marriott) was of no avail, life being extinct in the four cases.

DEATHS FROM POISONOUS FRUITS.

During the month, a little girl nine years of age died at Worcester through eating the seeds of the laburnum. A little boy three years old died at Wolverhampton from the effects of the *Atropa Belladonna*: his four playmates, who had also eaten the attractive berries, were taken ill at the same time, but have recovered.

GENERAL NEWS.

TRANSMISSION OF PATTERNS BY POST.

Patterns of merchandise similar to those already transmissible by post between England and France at reduced rates, may now be transmitted by post between any places in the United Kingdom at the following rates of postage, which must in all cases be prepaid by means of postage stamps, viz.:—For a packet of patterns weighing not more than 4 oz., 3d.; more than 4 oz., but not more than 8 oz., 6d.; more than 8 oz., but not more than 16 oz., 1s.; more than 16 oz., but not more than 24 oz., 1s. 6d. Special attention is directed to the following rules and regulations, which will be strictly enforced, viz.:—

1. No packet of patterns must exceed 24 oz. in weight; exceeding that weight it will be treated and charged as a letter.

2. The patterns must not be of intrinsic value. This rule excludes all articles of a saleable nature; and, indeed, whatever may have a value of its own, apart from its mere use as a pattern; and the quantity of any material, sent ostensibly as a pattern, must not be so great that it can fairly be considered as having, on this ground, an intrinsic value. Packets containing patterns of intrinsic value will be treated and charged as letters.

3. There must be no writing or printing other than the address of the person for whom the packet is intended, the address of the sender, a trade mark and numbers, and the prices of the articles; otherwise the packet will be treated as a letter.

4. The patterns must be sent in covers open at the ends, so as to be easy of examination. Samples, however, of seeds, drugs, and so forth, which cannot be sent in open covers, may be enclosed in bags of linen, or other material, tied at the neck; bags so closed that they cannot be readily opened, even although they be transparent, must not be used for this purpose. Non-compliance with this rule will also subject the packet to be treated as a letter.

5. In all other respects the regulations of the inland book post will apply to the inland pattern post. Under these regulations, in order to prevent any interruption to the regular transmission of letters, a packet of patterns may, when it is necessary, be kept back for twenty-four hours beyond the time when, in the ordinary course, it would be forwarded.

N.B. The rule which forbids the transmission through the post of any article likely to injure the contents of the mail-bags or the person of any officer of the Post-office is, of course, applicable to the pattern post; and a packet containing anything of the kind will be stopped, and not sent to its destination. Articles such as the following have been occasionally posted as patterns, and have been detained as unfit for the post, viz., metal boxes, porcelain and china, fruit, vegetables, bunches of flowers, cuttings of plants, spurs, knives, scissors, needles, pins, pieces of machinery, watch machinery, sharp-pointed instruments, samples of metals, samples of ore, samples in glass bottles, pieces of glass, acids of various kinds, currycombs, copper and steel engraving plates, and confectionery of various kinds.

By command of the Postmaster-General, Rowland Hill, Secretary.
General Post-Office, October 1.

ADULTERATION OF BITTER ALMONDS.

"A Distiller," writing from Great Sutton-street, calls attention to a gross commercial fraud:—

"For the last two years, but in particular during the past season, a most pernicious fraud, suicidal to the parties themselves, has been practised by the shippers (with or without the sanction of the importers) of Barbary bitter almonds, by the admixture of sweet almonds with the bitter to the extent on the average of one-third, whereby they

are reduced in value from £3 to £5 per ton, and the market, as at this time, inundated with the so-called bitter almonds.

"The importers will do well to discourage this evil, by which they will greatly benefit themselves, and do an act of justice to the consumers."

G A Z E T T E.

BANKRUPTS.

Boulding, Edward, King's Lynn, chemist.

Hues, James John, Handsworth, chemist.

Jacklin, Timothy John, Methringham, Lincolnshire, chemist.

Wilde, Eli, Manchester, druggist.

PARTNERSHIP DISSOLVED.

Chambers and Thew, Manchester and Philpot-lane, drysalters.



THE BRITISH PHARMACEUTICAL CONFERENCE.

SIR,—It must be apparent to all unbiassed readers that the glowing accounts given in your last number, and in the *Pharmaceutical Journal* of this month, of the inauguration of the British Pharmaceutical Conference are too highly coloured, and that in reality the meeting was almost a failure.

Considering the importance of the movement and the number of Pharmaceutical Chemists, many will feel surprised at the meagre attendance and the limited promises of support. Surely the publicity given to the movement, and the fact that it is supported by the Professors of Bloomsbury-square, ought to have caused the Pharmaceutical Chemists to become *en masse* supporters of this Conference. Have the Pharmaceutical Chemists forgotten that some of their number imagine their society to be composed entirely of intelligent working Pharmacutists? Surely not! Yet the apathy shown towards this new undertaking has well proved that the majority of Pharmaceutical Chemists are indifferent to the progress of Pharmacy.

For an institution like the British Pharmaceutical Conference to flourish and do honour to our country, it must be supported by the talents of the whole trade, consequently the attempt made by a few energetic members of the Pharmaceutical Society to forward their own interests by establishing this conference is futile, and however much the promoters by their reports endeavour to give the first meeting a businesslike aspect, the organization must eventually prove a failure. Will the Pharmaceutical Conference receive the support of the entire trade? Certainly not. Can it be supposed

that those Chemists and Druggists who were in business prior to the formation of the Pharmaceutical Society, and also those who have served an apprenticeship and are now in business, will exert themselves to uphold such an institution, when the promoters are constantly attempting to prove that all Chemists and Druggists who are not members of the Pharmaceutical Society are mere vendors of drugs—ignorant dabblers in physic, quite beneath their notice? Of the peculiar liberality of the Pharmaceutical Society we had an instance last year when applying for exemption from serving upon juries. Did the Pharmaceutical Society seek this boon for the entire trade? No! But what is the result? The learned Judges, well aware that Pharmaceutical Chemists are not more, and in some cases much less qualified than Chemists and Druggists not connected with their Society, will not impose a fine upon any member of the trade, but readily grant a discharge. Indeed in some counties Chemists and Druggists are not put on the list of Jurors.

What then is the object of the promoters of the British Pharmaceutical Conference, by making the membership of this body voluntary, and the fee trifling? They seek to obtain the confidence and support of those who are interested in the advancement of Pharmacy; but, as I have shown that these disciples of Jacob Bell seek only the interests of their Society, their stratagem will not take with those who are not connected with them; and as the number of Pharmaceutical Chemists who cultivate Pharmacy with any nobler aim than their own aggrandizement is exceedingly small, it follows that the Pharmaceutical Conference

will be imperfectly constituted, and will not represent British Pharmacy. Occasionally a voice is heard from a member of this exemplary society informing us "they have aimed at too much and done too little;" and unless some arrangement is come to with the great majority of the trade, the same remark will apply more forcibly to this new undertaking.

The promoters imagine that by allowing existing societies to send delegates to this conference they will thus strengthen the bonds, while they reap the benefits of the trade throughout the country. However, as the existing Local Associations are composed principally of Chemists and Druggists not members of the Pharmaceutical Society, it can scarcely be supposed that they will commit themselves in such a manner as to send delegates to this conference. The promoters assert that this conference is not to be confined entirely to the Pharmaceutical Society, but that they are wishful that professors, scholastic teachers, and any others interested in the undertaking should be members. This is quite right and indispensable; but as "*membership of this conference is not to be considered any guarantee of competency*," will there be any honour in being connected with an association like this, which, as I have before stated, seeks only the advancement of Pharmaceutical Chemists?

With regard to the committee on adulteration, although I consider it very important that pure drugs and chemicals should be found in every Chemist's and Druggist's establishment throughout the country, I cannot think that a committee on adulteration will affect the sale of adulterated articles. The wholesale Druggist has more pleasure in selling a pure than an adulterated article, and is only driven to the necessity of adulteration by the demand of his customers for a low-priced article; and as the demand is made by Pharmaceutical Chemists as well as those not connected with the society, it follows that the committee on adulteration will do no good but probable injury by creating a greater amount of trade jealousy. Rather should the members of this committee turn their attention to the education of the younger branches of the trade, that by enabling them to detect these adulterations they could the better prevent an impure article entering their shops.

I am therefore of opinion that the promoters of the Pharmaceutical Conference have erred in establishing this association at the present time, and that the talents and energies of these men would have found more scope and honourable occupation in reorganizing their society with a view to an amalgamation with the United

Society, for the purpose of seeking an Act of Incorporation for the entire trade. As at present constituted, the Pharmaceutical Society seeks only the interests and aggrandizement of its members, whilst the United Society works for the entire trade, and therefore deserves the warmest eulogiums and best wishes of all those educated men who have been contemptuously spoken of as "outsiders." For my own part, I do not doubt that the United Society will make headway against all the invectives and designs of its opponents; and will outlive that singularly egotistical body, the Pharmaceutical Society.

I am, Sir,
Your constant reader,
X.

AN IMPURE TRADE.

SIR,—The letter of J. W. N., headed "Trade Swindling," in your August number, reminds me of my intention of writing a few lines for the perusal of a certain class of Chemists: I allude to those who, for the sake of a few shillings a year, defile themselves by selling "French Letters" and lotions to prevent venereal infection. To my conscience, he who sells these things comes under the appellation of an abettor of the sin committed in their use. There is a wide distinction between the selling of medicines for the cure of venereal disease and the sale of "French Letters," &c. You cannot deny a man relief from pain and a remedy for disease, but you can deny him the means by which he can indulge his sensual appetite with comparative impunity. I am told that many Chemists who would be insulted were they not styled respectable, sell these abominations. Surely I must be misinformed. It is a disgrace for any Chemist to sell them, and I trust the honourable character of the profession will no longer be sullied by this impure traffic. The painful fact only wants bringing into the light of day that the stain may be seen and cast out. You will oblige me by the insertion of the above.

Yours truly,
R. H.

"TOM CLINK."

SIR,—In your last number of CHEMIST AND DRUGGIST there was some reference to a cheap intoxicating drink, and the mischief it was doing. The *Medical Times* was quoted as doubting the truth of the statement. If you will kindly refer to an article in the enclosed paper, on Intemperance and its Evils, I think you will recognize the evil-doer under the cognomen "Tom Clink," and perceive that there is but too much reality in its existence and the mischief it is doing. Whether any

good may be done by exposing the evil, and drawing the attention of the proper authorities to it, I cannot say; but of the existence of the evil there can be no doubt, and as to the desirability, if possible, of stopping it, there cannot be two opinions. If you can aid this object by a few remarks from your practised pen, you will help a righteous cause, and merit the thanks of every

WELL-WISHER OF HIS SPECIES.

[The article referred to is a letter from a member of "The Home Missionary Society." We extract from it the passage relating to the mysterious "Tom Clink."]

"I am very sorry to say that drunkenness seems to be on the increase in this town and locality. This arises from a very cheap sort of drink, termed 'Tom Clink,' which is made at Burton, and sold in the beerhouses here; and, because of its cheapness, many of the poorer classes get it, and chiefly on Sunday, and it takes sudden and powerful effect upon them. I have found many taking this drink during the summer months lying in the public road, not able to move or speak. There is one of these beerhouses, especially, that has become a public nuisance; and I am taking steps at present, first to bring moral and Christian influence to bear upon the party who keeps the house; and if that fails, then resort will no doubt be had to legal measures."

We should be glad to know something more about this new drink. There is no evidence as to its being sweet spirits of nitre.—Ed. C. & D.]

PATENT MEDICINE LICENCE.

Enfield, October 8th, 1863.

SIR,—We who reside within the limits of the *old twopenny post*—that is, I believe, within a radius of twelve miles of the Metropolis—are obliged to pay a licence of £2 per annum for vending patent medicines. Now, since the introduction of the penny postage in 1840, I have always paid this tax most reluctantly, inasmuch as the rule in law which governs it is no longer in existence; consequently justice demands an alteration of the law. In order to show the unfair operation of this tax, I, who sell perhaps £40 worth of patent medicines in the year, pay precisely as much as a wholesale house which returns in these articles perhaps £20,000 per annum. Surely this is unfair! The remedy I would suggest is, that there be a wholesale and a retail licence respectively. Some few in the trade, I am aware, imagine if the tax was reduced to 10s. many other persons not in the trade would be induced to take out a licence; but, in my opinion, such would not be the case. I am aware, also, that cities and boroughs pay an intermediate sum for their licences; but my neighbours in country towns and villages only pay 5s. All these circum-

stances induce me to think that the United Society would do well to see to this matter, as our interests are concerned in it: and I further think, if a deputation waited upon the Chancellor of the Exchequer, pointing out this anomaly in taxation, especially if supported by petitions numerously signed by the sufferers thereby, he would take heed of it with a view to amend the law. Hoping to see the opinion of others expressed through your Journal,

I am, Sir, yours obediently,

M. P. S.

[The two important letters printed below were accidentally left out of our last number. Though their publication has been delayed, nothing has occurred during the month to weaken the powerful arguments employed by the writers, or to detract from the interest which all members of the trade must take in the questions discussed.—Ed. C. & D.]

THE DEVELOPMENT OF THE PROPOSED SCHEME OF INCORPORATION.

September 12, 1863.

SIR,—In the columns of your last number there are three remarkable letters, one from Mr. Harland, one from Mr. Slugg, and another from Mr. Barling. Mr. Harland does not only demonstrate the absurdity and injustice of the Medical Council claiming a right to legislate for Chemists and Druggists, but he clearly shows that the Chemist is necessarily, to a certain extent, the physician of the poor. If the medical men would only look at home, they would find an ample field for reformation, and see the necessity of a higher order of dispensers than stable-boys and porters.

Mr. Slugg seems anxious to explain away or soften down the denunciation he had publicly bestowed upon the projected Bill of the Medical Council; but in his eagerness to do so, he commits himself to a positive contradiction. He says first, "As the result of riper knowledge on this subject" (compulsory examination), "my views are greatly modified;" and then he immediately adds, "I do not object, nor have I ever objected, to a compulsory examination of those whose business it is to compound medicine." Compulsory examination is precisely what we approve of, and what the Medical Council recommends; and if Mr. Slugg approves of it now, and *ever has done*, in what respect can his views be so greatly modified? Mr. Slugg further says, "the principle of the Bill is right, and no duly-qualified Chemist has anything to fear from it." It appears to me that there are *two* principles involved in the proposed measure: first, a compulsory test; and

second, a compulsory *subordination* of Chemists and Druggists to the Medical Council. Now, which does Mr. Slugg mean? He agrees with the Council upon the first; and from the intimation that the "duly-qualified have nothing to fear," the logical conclusion is, that those *not duly qualified* have to fear the pains and penalties provided by the Medical Council with the approbation of Mr. Slugg. Thus has he fairly offered himself for impalement upon the one horn or the other of a self-created dilemma. He approves of a test either for *present* or *future* application. If *present*, he throws himself headlong from the platform of his brother Druggist to the feet of the Medical Council; if *future*, there was no need for recantation. This ill-advised letter is much to be regretted.

I turn with much pleasure to the letter of Mr. Barling. It is a courageous adoption of the "suggestions," of the Executive Committee of the United Society; and although I think that the writer ought to have acknowledged the source of his inspiration, the service he has rendered the trade in urging the necessity of reform upon the attention of the Pharmaceutical Society is so important, that this sin of omission will readily be forgiven him.

Allow me to suggest that whatever reform takes place, it must, to be effectual, have no reference to the promotion either of United or Pharmaceutical Society interests, but be for the benefit, and have the concurrence of, the entire trade. So far as Mr. Barling may be taken as an exponent of the sentiments of his brother Pharmacutists, there is no essential difference amongst us as to the kind of reform we need. We agree that it should be in the shape of an Act of Parliament based upon a recognition of existing rights; that none should be permitted to dispense drugs without sufficient proof of competency, and that every possible effort should be made to elevate and dignify the trade.

If the members of the Pharmaceutical Society really wish to lift up the trade from the degradation of ignorance and incompetency, they must abandon the absurd idea of sectional superiority. Qualification up to the standard of a minimum test should be essential and compulsory. Were we all to join our efforts to obtain an Act of Parliament upon this principle, we should find the wisest clause we could insert in it would be one to retain the educational utility of the Pharmaceutical Society, and to elevate and dignify it as the collegiate institution of the trade. Let the incorporated trade come under a common designation; and if the adjective "Pharmaceutical" be retained, let it be used only in the sense of an honourable diploma, and

be still enjoyed by those who have fairly won it by examination.

If Mr. Barling and those who think with him would meet us upon this ground, we could insure the Bill, and do more real good than both Societies have yet achieved.

I am, Sir,
Your obedient servant,
VIGIL.

THE ERROR AND THE REMEDY.

September 8, 1863.

SIR,—Astonishment is everywhere expressed at the Council of the Pharmaceutical Society allowing the letter of Mr. Barling to appear in its journal without comment; more especially as, now, it cannot permit the "young recruits" to infer that it acquiesces in his views. I think there cannot be much difficulty in divining the motive. The leaders of the Pharmaceutical Society have held up exclusiveness to the last; and their eyes are now opened to the fact, that the trade is roused to action, and that it is necessary to prepare for the coming storm. Mr. Barling's letter is as a straw thrown up to catch the wind. They are now in a dilemma; for whilst their liberal members endorse the "Remedy," the others deny the "Error." The leading article this month shows a desire to compromise matters, and the result will be the adoption of the liberal views. After the antagonism hitherto displayed against all outsiders, it would be too much to expect them readily to accept the propositions of Mr. Barling, which are those of the United Society; but by the publication of letters such as Mr. Astley's and others, they will be enabled to declare themselves influenced more by the desires of their own members than by pressure from without. When the time arrives to take action against the Medical Bill, they will not only forsake their conservative friends, but will adopt the United Society's proceedings, in order to secure themselves the governing power. See with what caution they argue the question; committing themselves to neither side, but blowing hot and cold to please the several correspondents who have stated what their opinions are. They admit that "if the Medical Bill is carried into effect, the whole subject of Pharmaceutical examinations and qualification will be likely to occupy a good deal of attention among the Medical and Pharmaceutical public. Propositions may be made for some alteration in the present system, &c.":—which means, that when the time comes they will adopt the Act of Incorporation as suggested by the United Society, and so preserve themselves from becoming obsolete. This suggestion is taken from a letter by Mr. Hornsby, with whose views the leaders of the Council acquiesce, for the

present. Mr. Hornsby denies that his Society is a failure, but at the same time he evidently considers that its days are numbered. He writes, "We must have an Examining body in the event of any future compulsory legislation; we already have one in existence, and *why* should it not form the nucleus upon which the legislature may base its operations? Existing interests would in such a case be *protected*, without doubt; and we think it quite well to wait a little longer, till matters are more ripe, for more decided steps."

There can be no doubt that a change will be effected in the position of drug traders and dispensers; but it would have been far more reasonable to have made it fineable for any Surgeon or Apothecary "keeping open shops for the compounding of medicine," than to prevent the Chemist from fulfilling his legitimate calling. If that had been contemplated, then the Pharmacist might have looked forward to both honour and remuneration arising from his studies and business. But, as it is, what advantage has the holder of a certificate residing in a poor locality—surrounded by Apothecaries, who, if not keepers of open shops, compound their own medicines? When occasionally a neighbour consults a Physician, instead of returning to his own district to have the prescription prepared, he is advised to take it to a leading house in one of the wealthy localities, in order to

have it genuine. Traded on account of residence, repudiated as an adulterator, of what use is the title M.P.S.? Why acquire scientific attainments? Of what service is botanical study? How is it possible to keep up integrity for genuine goods, or to live upon the dignity of a qualification, or even to compete with the practical outsider, who meets his position by selling anything which bears a profit? And we cannot all reside in respectable localities. We are all desirous of being registered, but as unwilling to "try back" and be examined as the Associates themselves, to whom Mr. Hornsby thinks this "trying back" would be very unfair. But whilst we are prepared to make examination compulsory in the future, we are determined not to be under the control of the Medical Council; and it is to be decided, whether the trade will allow its affairs to be managed by those who first ignored all outsiders, and then tried to sell them into medical bondage.

The United Society having been the means of incorporating the entire trade will not allow itself to be shelved, but will depend on the support of all outsiders, as well as liberal Pharmacutists, to enable it to construct a popular and trustworthy body of management.

I am, Sir,
Yours, &c.,
AN OUTSIDER.



Oxalate of Cerium.—"Veritas."—This salt was first employed as a medicine by Dr. Simpson of Edinburgh, the introducer of chloroform. It is administered as a remedy for obstinate vomiting in pregnancy. Dose, gr. j. to grs. ij. three times a day. It was exhibited by Morson and Hopkin at the International Exhibition, as a white powder.

Syrupus Ferri Pyrophosphatis.—"Contributor."—Professor Procter, of Philadelphia, gives the following form:—Dissolve pyrophosphate of soda, 120 gr. (3 equivalents), in water, f. 3iv.; add solution of persulphate of iron (as much as contains 2 equiv.) till precipitation ceases, then wash the white gelatinous iron salt on a filter till the washings pass tasteless. Triturate the iron salt in a mortar with citric acid, 40 gr. previously powdered; then add liquor of ammonia, q. s., gradually with constant stirring until a transparent reddish brown liquid is obtained: finally, add syrup of orange flowers, f. 3ij., and simple syrup q. s. to make f. 3xix. The pyrophosphate of soda is obtained by heating ordinary phosphate of soda to redness.

Pil. Potassii Iodidi.—(G. A. F.) Iodide of potassium and powdered starch, of each 3ss; conserve of hips, q. s. For thirty-six pills. Dose, one to six, thrice daily; in glandular indurations and enlargements, goitre, scrofula, &c. (Cooley).

"Objects for the Microscope."—(F. W. J.) The price of this little work, recently reviewed by us, is 3s. 6d. The publishers are Messrs. Groombridge and Sons, Paternoster-row.

If "W. Howard" will address the Secretary of the United Society at 20, Great Ormond-street, he will receive every information.

TRADE REPORT.

London, October 13.

THERE has been an improved tone in the market for Chemicals since this day month, business being more general, and in some cases better prices have been obtained. In Tartaric Acid several sales have been made, and the price is now firm at 1s. 5½d. Citric has also sold more readily at 1s. 5d. Good sales have been made in Oxalic, and the price remains firm at 8d. Sal Acetos is better, and more in demand, at 10½d. Chlorate of Potash is in good demand at 11½d. Bichromate is dull at 8½d., and so is Prussiate of Potash at 11½d. to 11¾d. Iodine is almost nominal at 4¾d. to 4¾d., according to quality. Soda Ash is quiet at 1¼d. to 2d. Sulphate of Copper is steady at 31s. 6d. to 32s. More doing in Sulphate of Ammonia at 13s. 9d. up to 15s., according to quality. Sal Ammoniac is very firm at 36s. and 38s. Small sales have been made in Cream of Tartar at 110s. to 112s. 6d. for the best. More doing in Sulphate Quinine at 6s. 4d. for English, and 6s. for French. Flour of Sulphur is quiet at 11s. to 11s. 6d., and for forward delivery 12s. Bleaching Powder is quiet at 9s. 3d. to 9s. 6d. Soda Crystals are dull at 92s. 6d. ex ship. Alum is firm at £7 to £7 10s., according to package. Linseed Oil is quieter at 42s. 9d. in London, 42s. 6d. in Hull, and 39s. 3d. for the first six months' delivery. Rape is dull; brown is now 41s., and refined 44s. 6d. to 45s. Turpentine gave way after our last, but is now firmer, and closed buyers at 72s., with sellers at 73s. Extensive sales have been made in Petroleum; but prices have come down to 2s. 2½d. to 2s. 3d. for refined American, and about 2s. 2d. for English. Several sales have been made in Crude, the prices closing at £20 to £20 10s. for Pennsylvanian on the spot, and £20 10s. for November and December delivery. Ashes remain steady at our quotations. Refined Saltpetre is without change, viz., 41s. to 41s. 6d.; but rough has given way fully 6d. per cwt.

In the Drug market business has been quiet, with few changes. Camphor declined to 125s., but is now firm at 135s. Castor Oil has sold steadily at 4¾d. to 5½d. for middling to good pale. Extensive sales have been made in Oil Cassia, the price closing firm at 9s. 6d. Large sales also in Oil Aniseed on the spot, and for arrival up to 6s. 3d. to 6s. 4½d. Citronelle is also rather dearer. New Camomile Flowers have sold at 75s. to 77s. Turkey Arabic is fully 5s. dearer: East India is also higher. The parcels of China Rhubarb offered have been chiefly taken in. Crown and Grey Bark are fully 1d. to 2d. dearer. Large parcels of Isinglass have been sold at 3d. to 6d. advance. Cod Liver Oil maintains the late advance. Logwood in much better demand; last salesmade at 85s. to 87s. 6d. More doing in Turmeric at 31s. to 32s. for fine Bengal. Gambier and Cutch are both dearer, and in good demand. Cochineal is 1d. to 2d. dearer, with large sales. Ipecacuanha has advanced to 7s. 6d.; but at this rise not much done.

PRICE CURRENT.

These quotations are the latest for ACTUAL SALES in Mincing Lane. It will be necessary for our retail subscribers to bear in mind that they cannot, as a rule, purchase at the prices quoted, inasmuch as these are the CASH PRICES IN BULK. They will, however, be able to form a tolerably correct idea of what they ought to pay.

	1863.				1862.			
	s.	d.	s.	d.	s.	d.	s.	d.
ARGOL, Cape, pr ct.	85	0	100	0	85	0	100	0
French	40	0	60	0	30	0	60	0
Oporto, red	45	0	47	0	47	0	48	0
Sicily	70	0	75	0	70	0	80	0
Naples, white	65	0	80	0	65	0	80	0
Florence, white	87	6	95	0	90	0	100	0
red	80	0	85	0	85	0	87	6
Bologna, white	110	0	115	0	115	0	120	0
ARROWROOT,								
duty 4½ per cwt.								
Bermuda	1	10	2	1	0	11	1	5
St. Vincent	0	6½	0	8½	0	3	0	6
Jamaica	0	5½	0	7	0	2½	0	4
Other West India	0	5½	0	6	0	2½	0	3½
Brazil	0	3½	0	4	0	1½	0	2
East India	0	3½	0	4½	0	1½	0	2½
Natal	0	6	0	10	0	2½	0	7½
Sierra Leone	0	5½	0	5½	0	2½	0	3
ASHES.....per cwt.								
Pot, Canada, 1st sort	31	6	32	0	34	6	0	0
Pearl, do, 1st sort	36	0	37	0	34	6	0	0
BRIMSTONE,								
rough.....per ton	135	0	140	0	135	0	0	0
roll.....	185	0	0	0	200	0	220	0
flour.....	220	0	260	0	260	0	280	0
CHEMICALS,								
Acid—Acetic, pr lb	0	3½	0	0	0	4	0	4½
Citric	1	5	0	0	1	7½	1	8
Nitric	0	5	0	5½	0	4½	0	5
Oxalic	0	8	0	0	0	8½	0	9
Sulphuric	0	0½	0	0	0	0½	0	0
Tartaric crystal	1	5½	0	0	1	7½	1	8
powdered.	1	6	0	0	1	8	0	0
Alum.....per ton	140	0	150	0	140	0	145	0
powder	155	0	0	0	0	0	0	0
Ammonia, Crb. lb.	0	5½	0	6	0	4½	0	6
Sulphate per ton	280	0	300	0	270	0	300	0
Antimony, ore	200	0	230	0	200	0	240	0
crude, per cwt	22	0	23	0	24	0	23	0
regulus	40	0	0	0	43	0	44	0
French star	39	0	0	0	44	0	0	0
Arsenic, lump....	16	0	17	0	17	0	18	6

PRICE CURRENT—continued.

1863.				1862.				1863.				1863.				
CHEMICALS.	s.	d.	s.	d.	s.	d.	s.	s.	d.	s.	d.	s.	d.	s.	d.	
Arsenic powder ..	7	0	..	7	0	..	7	0	..	5	3	5	9	..	8	9
Bleaching Powder.	9	9	..	10	3	0	9	9	..	10	0	3	3	..	5	11
Borax, E. I. refined	0	0	..	0	0	..	52	6	..	0	0	4	9	..	5	1
British.....	56	0	..	0	0	..	50	0	..	0	0	12	0	..	24	0
Calomel, .. per lb.	2	9	..	0	0	..	2	9	..	0	0	0	7	..	0	7
Camphor, refined.	1	10	..	2	3	0	3	4	..	4	4	0	6	..	0	7
Copras, grn. pr. in.	57	6	..	60	0	..	65	0	..	0	0	0	6	..	0	6
Crsiv. Sublime. lb	1	11	..	0	0	..	1	11	..	2	0	0	5	..	0	6
Green Emrid. pr. lb	0	0	..	0	0	..	0	9	..	0	11	1	0	..	26	0
Brunswk. cwt.	0	0	..	0	0	..	14	0	..	42	0	12	0	..	15	0
Iodine, dry, pr. oz.	0	4	..	0	4	..	0	5	..	0	5	11	0	..	14	0
Magnesia Crbn. ct.	42	6	..	45	0	..	42	6	..	45	0	4	3	..	6	0
Calcined, lb...	1	6	..	1	8	0	1	6	..	0	0	8	1	..	1	0
Minium red, pr. ct.	21	3	..	21	6	..	22	6	..	23	0	3	6	..	0	0
orange.....	32	0	..	33	0	..	33	0	..	34	0	0	1	..	0	0
Ptsh. Bichrom. lb.	0	8	..	0	9	0	0	7	..	0	8	0	0	..	0	0
Chlorate	0	11	..	0	0	..	1	2	..	0	0	10	0	..	11	0
Hydriodate oz.	0	4	..	0	5	0	0	5	..	0	6	10	0	..	11	0
Prussiate .. lb.	0	11	..	0	11	3	0	1	..	0	1	0	1	..	0	0
red.....	1	11	..	0	0	..	2	2	..	0	0	0	0	..	0	0
Precipit. red pr. lb	2	9	..	0	0	..	2	9	..	2	10	110	0	..	0	0
white.....	2	9	..	0	2	10	0	0	..	0	0	36	0	..	38	0
Prussian Blue....	1	0	..	1	10	0	1	6	..	1	10	200	0	..	320	0
Rose Pink..... pr. ct.	29	0	..	0	0	..	29	0	..	30	0	100	0	..	200	0
Sal-Acetos... pr lb.	0	10	..	0	10	3	0	10	..	0	10	25	0	..	32	0
Ammoniac, ct.												20	0	..	22	0
British.....	36	0	..	38	0	..	36	0	..	38	0	0	0	..	0	0
Epsom.....	8	0	..	8	6	0	8	3	..	8	6	47	0	..	49	0
Glauber	5	0	..	5	6	0	5	6	..	0	0	24	0	..	36	0
Soda, Ash, pr. deg.	0	2	..	0	0	0	2	13	..	0	0	24	0	..	36	0
Bicarbonate. ct.	11	9	..	12	3	0	12	9	..	13	0	0	3	..	70	0
Crystals, pr. ton	6	95	..	0	0	..	100	0	..	102	6	10	3	..	8	0
Sgr. Lead, white, ct.	37	0	..	0	0	..	37	0	..	0	0	0	3	..	3	6
brown.....	26	0	..	26	6	0	25	0	..	0	0	0	3	..	3	6
Silphate, Quinine oz	6	6	..	0	0	..	7	6	..	0	0	9	6	..	13	0
British in bttl.	6	0	..	6	3	0	7	6	..	0	0	1	9	..	5	6
Foreign	6	0	..	6	3	0	7	6	..	0	0	10	0	..	12	0
Sulphat. Zinc, cwt.	14	6	..	15	0	0	14	6	..	15	0	8	0	..	9	0
Verdigris.....lb.	6	10	..	1	0	1	3	1	..	5	0	10	0	..	12	0
Vermilion, English	2	8	..	3	0	0	2	8	..	3	0	0	3	..	4	8
China.....	2	0	..	2	1	0	2	3	..	2	4	0	3	..	4	8
Vtrl. blue or Romn.												0	3	..	0	0
per cwt.	30	0	..	31	0	..	33	0	..	35	0	83	0	..	90	0
COCHINEAL, pr. lb.												80	0	..	85	0
Honduras, black...	3	0	..	4	3	0	2	8	..	4	3	2	0	..	2	6
silver.....	2	8	..	3	6	1	6	3	..	3	6	1	6	..	1	9
Mexican, black....	2	11	..	3	3	0	2	8	..	3	0	29	0	..	28	0
silver	2	10	..	2	11	0	2	7	..	2	8	8	6	..	9	0
Lima	0	0	..	0	0	..	2	9	..	3	8	19	0	..	0	0
Teneriffe, black ..	3	3	..	3	7	2	2	9	..	3	8	8	6	..	13	0
silver	3	2	..	3	3	0	2	8	..	2	9	27	0	..	29	0
DRUGS.												0	3	..	0	0
Aloes, Hepatic, ct.	100	0	..	190	0	..	130	0	..	200	0	90	0	..	110	0
Socotrine	150	0	..	280	0	..	160	0	..	480	0	0	9	..	1	6
Cape, good.....	48	0	..	51	0	..	38	0	..	45	0	2	3	..	4	8
inferior.....	30	0	..	46	0	..	29	0	..	36	0	2	6	..	5	0
Barbadoes.....	50	0	..	360	0	..	60	0	..	380	0	5	0	..	5	6
Ambergris, gray.												12	6	..	13	0
per oz.....	16	0	..	20	0	..	22	0	..	36	0	46	0	..	47	0
Angelica Root, ct.	20	0	..	35	0	..	20	0	..	35	0	140	0	..	160	0
Aniseed, China str.	120	0	..	0	0	..	80	0	..	85	0	0	10	..	1	5
German, &c.....	19	0	..	38	0	..	19	0	..	40	0	0	9	..	1	2
Balsam Canada, lb	1	0	..	0	0	..	1	4	..	0	0	0	9	..	1	4
Capivi.....	1	3	..	1	5	0	1	7	..	1	8	2	1	..	4	2
Peru.....	4	0	..	4	10	5	0	5	..	5	2	1	4	..	12	0
Tolu.....	3	9	..	3	10	4	6	4	..	0	0	11	0	..	12	0
Bark Cascarilla ct.	25	0	..	40	0	..	23	0	..	40	0	28	0	..	36	0
Peru crown & grey												12	0	..	23	0
per lb.....	0	7	..	2	2	1	0	2	..	2	4	4	9	..	5	0
Calisaya, flat....	3	6	..	3	8	4	0	4	..	0	4	0	2	..	0	2
quill.....	3	0	..	3	4	3	6	3	..	0	0	0	2	..	0	3
Carthagen.....	1	2	..	1	8	1	3	2	..	6	6	0	4	..	1	6
Pitayo.....	1	8	..	2	6	1	10	2	..	2	9	0	3	..	0	6
Red	2	6	..	8	0	2	6	6	..	6	6	2	6	..	2	9
Bay Berries, pr. ct.	0	0	..	0	0	..	22	0	..	40	0	1	0	..	1	2
Bucca Leaves, lb	0	2	..	1	6	0	2	1	..	1	6	0	1	..	0	2
Camomile Flowers	30	0	..	75	0	..	40	0	..	95	0	12	6	..	14	0
Camphor, China...	135	0	..	140	0	..	320	0	..	325	0	15	0	..	38	0
Cannella Alba.....	19	0	..	38	0	..	19	0	..	40	0	0	0	..	0	0
Cantharides, pr lb	2	0	..	2	3	2	11	3	..	0	0	26	0	..	27	0
Cardamoms. Mlbar.												20	0	..	40	0
good.....	5	3	..	6	0	7	0	7	..	6	0	0	0	..	0	0
DRUGS.																
Cardamoms inferior	4	0	..	5	3	3	8	5	..	3	3	0	3	..	5	11
Madras.....	3	8	..	5	3	3	8	5	..	3	3	0	3	..	5	11
Ceylon.....	5	0	..	5	2	4	9	5	..	1	0	12	0	..	24	0
Cassia Pistula pr. ct.	20	0	..	35	0	..	12	0	..	24	0	0	7	..	0	7
Castor Oil, l. spale, lb	0	5	..	0	6	0	0	5	..	0	6	0	6	..	0	7
second.....	0	4	..	0	5	0	0	4	..	0	5	0	6	..	0	7
inf. & dark	0	4	..	0	4	0	0	4	..	0	4	0	6	..	0	6
Bombay, in casks.	0	4	..	0	4	0	0	4	..	0	4	0	6	..	0	6
Castorium	1	0	..	20	0	1	0	20	..	0	0	1	0	..	26	0
China Root, pr. ct.	12	0	..	15	0	12	0	15	..	0	0	12	0	..	15	0
Coculus Indicus ..	11	0	..	13	0	11	0	13	..	0	0	11	0	..	14	0
Cod-liver Oil, gal..	9	0	..	13	6	4	3	6	..	0	0	4	3	..	6	0
Cleynth. apple, lb.	0	7	..	1	0	0	8	1	..	0	0	0	8	..	1	0
Colombo Rt. pr. ct.	50	0	..	75	0	15	0	48	..	0	0	15	0	..	48	0
Cream Tartar, pr. ct.																
French	110	0	112	6	120	0	112	6	..	0	0	120	0	..	122	6
Venetian	112	6	..	0	120	0	112	6	..	0	0	112	0	..	115	0
grey	100	0	105	0	112	0	100	0	..	105	0	112	0	..	115	0
brown.....	97	6	102	6	105	0	97	6	..	102						

DRUGS.	1863.			1862.			OILS.	1863.			1862.		
	s.	d.	s. d.	s.	d.	s. d.		s.	d.	s. d.	s.	d.	s. d.
Vanilla, Mexican lb	21	0	.30	0	25	0 .55	Clove	0	2	0 .4	0	4	0 .0
Wormseed, pr cwt.	2	0	0 .0	0	2	0 .0	Croton	0	0	0 .0	0	3	0 .4
GUM..... per cwt.							Juniper per lb.	1	10	.3	0	1	10 .3
Ammoniac, drop.	100	0	120	0	100	0 120	Lavender	2	0	4 .6	2	0	5 .0
lump	15	0	.65	0	15	0 .70	Lemon	4	0	.9	4	0	.8
Animi, fine pale ..	220	0	.50	0	230	0 320	Lemongrass, pr oz	0	74	.0	0	4	0 .6
bold amber. 190	0	210	0	220	0	270	Mace, ex	0	0	0 .2	0	1	2 .0
medium.....	160	0	280	0	160	0 180	Neroli	5	0	.7	6	0	.7
small & dark 100	0	165	0	120	0	160	Nutmeg.....	0	1	0 .2	0	0	.2
ordinary dark 50	0	.95	0	40	0	.90	Orange..... per lb.	0	5	.6	6	5	.7
Arab. E. I. pale pkd 45	0	.70	.50	0	.58	0	Otto Roses, per oz	14	0	.23	0	15	0 .24
unsort. good to f	44	0	.64	0	32	.42	Peppermint, pr lb.						
red and mixed 30	0	.40	0	28	0	.30	American	0	0	.15	0	7	6 .14
siftings	15	0	.30	18	0	.23	English	34	0	.36	0	32	0 .34
Turkey, pkd. gd. f.	115	0	170	0	120	0 180	Rhodium . per oz	3	6	.5	6	3	.6
second & infr. 50	0	110	0	48	0	110	Rosemary. per lb.	1	8	3 .4	0	10 .3	
in sorts	32	0	.50	30	0	.42	Sassafras	3	6	.4	0	3	0 .4
Gedda	30	0	.33	26	0	.28	Spearmint	5	0	.8	6	5	0 .10
Barbary, white ..	52	0	.58	34	0	.42	Spike	0	0	0 .0	1	3	1 .6
brown	42	0	.48	30	0	.33	Thyme	1	9	.2	3	1	9 .2
Australian	36	0	.38	24	0	.25	PITCH, Brtsh, pr cwt.	12	0	0 .0	8	0	0 .0
Assafet. fr. to gd. 30	0	112	.6	40	0	110	Swedish	0	0	0 .0	10	6	11 .0
Benjamin, lft. qual. 350	0	630	0	400	0	560	SALT-PETRE, pr cwt.						
2nd qual 280	0	300	0	260	0	330	Engl, 6 p. c. under	37	0	.37	6	40	0 .41
3rd	50	240	0	60	0	180	over 6 per cent.	35	6	.36	6	58	0 .30
Copal, Angola red.	90	0	95	0	100	0 110	Madras	35	6	.37	6	38	0 .40
pale. 85	0	100	0	95	0	100	Bombay	34	0	.36	6	35	6 .37
Benguela.....	75	0	90	0	105	0 130	British-refined...	40	6	.41	6	43	0 .44
Sierra Leone lb	0	4	.1	6	0	9 .1	Nitrate of Soda ..	15	0	.15	16	13	6 .14
Manilla prt 30	0	.44	6	20	0	.40	SEED, Canary, pr gr.	38	0	.50	0	36	0 .54
Dammar ple. pr ct	36	0	.46	44	0	.47	Caraway, Eng. p. c.	28	0	.34	0	0	0 .0
Galbanum	100	0	120	0	100	0 120	German, &c	0	0	0 .0	0	0	0 .0
Gmbege, pkd. pipe 160	0	150	0	140	0	180	Coriander	0	0	0 .0	0	0	0 .0
in sorts.....	90	0	150	0	80	0 110	East India	0	0	0 .0	0	0	0 .0
Guaiaicum . pr. lb.	0	6	.1	5	0	6 .1	Hemp	0	0	0 .0	0	0	0 .0
Kino	200	0	280	0	260	0 290	Linsced, Black Sea	60	0	.61	0	62	0 .63
Kowie.....	40	0	.60	22	0	.24	Calcutta	62	0	.65	0	65	0 .66
Mstic, pkd. pr lb.	4	6	.5	0	5	.3	Bombay	68	0	.69	0	71	0 .0
Myrrh gd & fi pr ct 150	0	170	0	160	0	200	Egyptian	60	0	.63	0	60	0 .62
in sorts.....	70	0	150	0	70	0 180	Mustard, brn, p. bhl	10	0	.14	0	0	0 .0
white.....	10	0	.12	0	0	.13	Poppy, E. I. per gr	53	0	0 .0	0	58	0 .59
Olibanum, pl. drop	76	0	.88	0	54	0 .67	Rape, English	0	0	0 .0	0	0	0 .0
amb. & yel. 48	0	.70	.4	41	0	.50	Danube	60	0	0 .0	0	72	0 .73
m. & dk. 16	0	.95	0	12	0	.35	Calcutta, fine ..	53	0	.54	0	66	0 .67
Senegal	48	0	.40	44	0	.42	Bombay	62	0	.64	0	68	0 .73
Sandrac.....	82	0	110	0	76	0 .97	Teel, Sceme or Gen	60	0	.65	0	65	0 .71
Tragacanth, leaf. 180	0	300	0	180	0	320	Cotton . per ton 150	0	160	.175	0	175	0 .195
in sorts. 100	0	130	0	100	0	130	Gnd. Nt. Kneils, tn	340	0	0	0	350	0 .360
OILS..... per tun.	£	s.	£	s.	£	s.	SOAP, Lnd, yel. pr ct.	32	0	.36	21	0	.36
Seal	0	0	.46	0	£	48	mottled	36	0	.38	34	0	.38
Sperm, body.....	50	0	0 .0	84	0	0 .0	curd	50	0	0 .0	50	0	0 .0
Cod.....	55	10	.56	48	0	.47	Castile	40	0	.41	39	0	.40
Whale, Greenland,	0	10	0 .0	0	0	0 .0	Marseilles	40	0	.42	40	0	.41
Sth Sea pale	0	10	.44	0	39	0 .42	SOY, China, per gal.	2	1	.2	3	2	.6
E. I. Fish.....	38	10	0 .0	37	10	.38	Japan	0	10	0 .1	0	8	0 .10
Olive, Galipoli, tn.	59	0	.60	0	60	0 .61	SPONGE, Turk f. pkd	20	0	.24	0	20	0 .24
Florence, & chst.	20	0	.21	0	22	0 .0	fair to good ..	0	.38	0 .0	8	0	.18
Cocoot. Cochin. 47	6	.48	.58	0	.57	.58	ordinary.....	3	0	0 .0	3	0	0 .0
Ceylon	45	0	.46	53	6	.54	Bahama	0	3	.1	3	0	.1
Sydney	40	0	.44	46	0	.53	TURPENTINE.....						
Ground Nut & Gin.							Rough. per cwt.	0	0	0 .0	0	0	0 .0
Bombay	39	0	.40	49	0	.50	Spirits, French ..	73	0	.74	0	0	0 .0
Madras	40	0	.41	50	0	.50	American, incks	0	0	0 .0	132	0	0 .0
Palm, fine.....	37	6	.38	40	10	.43	WAX, Bees, English	170	0	.175	0	172	0 .175
Linsced	42	9	0 .0	42	0	.42	German	162	6	.180	0	175	0 .180
Rapeseed, Engl. pale	43	6	.41	50	0	.0	American	165	0	.175	0	160	0 .170
brown.....	41	6	0 .0	48	0	0 .0	white fine	0	0	0 .0	0	0	0 .0
Foreign do.....	45	0	0 .0	51	0	0 .0	Jamaica	167	6	.175	0	170	0 .180
brown.....	41	6	0 .0	48	0	0 .0	Gambia	170	0	.175	0	175	0 .0
Lard	44	0	.45	49	0	.50	Mogadore	130	0	.155	0	125	0 .160
Tallow	39	0	.40	40	0	.41	East India.....	140	0	.180	0	140	0 .170
Rock Crude	20	0	.20	10	17	0 .0	ditto, bleached.	170	0	.220	0	165	0 .200
OILS, Essential—	s.	d.	s. d.	s.	d.	s. d.	vegetable, Japan.	58	0	.68	0	70	0 .82
Almond essen. lb.	19	0	0 .0	19	0	0 .0	WOOD, DYE, per ton,						
expressed ..	0	0	0 .0	1	0	0 .0	Fustic, Cuba	145	0	.160	0	155	0 .175
Anised	6	3	.6	5	9	.5	Jamaica	130	0	.135	0	130	0 .135
Bay	110	0	120	0	110	0 120	Savannila	115	0	.125	0	100	0 .0
Benjamin, pr lb.	7	0	.10	6	5	.12	Zante	0	0	0 .0	0	0	0 .0
Capruta, bond, oz	0	24	0 .24	0	14	0 .3	Logwood, Camphy	205	0	.220	0	195	0 .200
Caraway	4	3	.5	6	4	3 .6	Honduras	120	0	0 .0	145	0	.150
Cassia	9	3	.6	6	9	6 .0	St. Domingo. ..	90	0	0 .0	115	0	.120
Cinamon (t) b. oz	1	6	.3	6	1	4 .4	Jamaica	85	0	.87	6	107	0 .615
Cinamon Leaf...	0	2	0 .0	41	0	2 .0							
Citronel.....	0	44	0 .54	0	54	0 .54							



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92. D. DAWSON. *Improvements in manufacturing magenta colour or dye.* Dated January 12, 1863.

In carrying out this invention, the patentee mixes a solution of arsenic acid with aniline in equivalent proportions, so that a neutral salt of arseniate of aniline is formed. The solution of arsenic acid is such that it contains from twenty-three to thirty per cent. of water, including water of hydration. The acid containing twenty-three per cent. of water is liable to deposit crystals, but they may be used along with the mother liquor, as arseniate of aniline will in that case be formed as well as if the arsenic had been all in solution. When the mixture is made and cooled, it is a solid substance, usually white, having a somewhat crystalline aspect. This substance contains all the water which held the arsenic acid in solution, perhaps as water of crystallization. The patentee then puts this arseniate of aniline (plus water) into a strong iron cylinder capable of resisting a pressure of about 200 lb. on the square inch. The cylinder is provided with an air-tight fitting lid, in which a pressure gauge is inserted. He now bolts the lid on. The cylinder being prepared as above, he places it in a bath capable of being raised up to the temperature of from 350 degrees to 360 degrees Fahr. The bath he now raises up to a temperature of about 345 degrees or 350 degrees, by applying heat by a sand-bath, or by a naked fire; care must be taken to keep the temperature about 345 degrees or 350 degrees Fahr. for the space of about twelve hours. He does not confine himself exactly to twelve hours, as the time necessary for producing the required result will vary according to the size of the apparatus. The pressure will get up as high as from 70 lb. to 100 lb. on the square inch. He has now produced the colour, and it only needs taking out of the cylinder and purifying by some well-known method. *Patent completed.*

117. J. A. SCHLUMBERGER. *An improved process for manufacturing colours for dyeing and printing.* (A communication.) Dated January 14, 1863.

In order to produce a true light blue

which will appear blue at night as well as by day, the inventor takes a salt of rosaniline, such as hydrochlorate of rosaniline, and he mixes it with a suitable proportion, according to the shade required, of acetate of aniline, or an acetate of toluidine, or an acetate of any aniline homologues. In practice he mixes the rosaniline with three parts of aniline and one and one-half part of acetic acid; he then neutralizes the mixture by adding thereto an equivalent proportion, say one part, of carbonate of soda, or soda, or any alkaline base which is able to decompose the acetate of aniline and produce a combined salt with the acetic acid used. The mixture is then heated to a temperature between 180 degrees and 210 degrees centigrade, as long as is requisite in order to obtain the desired shade of blue, and until the mixture when looked at through a glass appears without any purplish tint. The product thus obtained is precipitated with strong muriatic acid, and is boiled up therein, when the blue colour will separate from the liquid, and will solidify it, so that it may be removed from the liquid by a skimmer. The colouring matter obtained may then be purified from the acid by boiling it several times in water, after which it may be pressed and dried. The colouring matter dissolved by the strong acid is precipitated with water, and will produce a blue of second quality, but no purplish or violet tint will appear. The colouring matters may then be dried, and will be ready for use if dissolved in alcohol or methylated spirit, and the shade produced is a blue which has no purplish tint by artificial light, but is a pure blue. *Patent completed.*

192. H. CARO and J. DALE. *Improvements in obtaining colouring matters, which improvements are also applicable to dyeing and printing.* Dated January 21, 1863.

This invention consists—1, in treating colours derived from aniline with the substance known as acroleine, whereby the said colours become modified. Also in treating mauve or aniline purple with aniline and benzoic acid under heat, whereby the tint is modified and a blue colouring matter obtained. *Patent completed.*